Proposal to Design and Implement Decision-Support Tools and Predictive Analytics in Human Services for the County of Allegheny Department of Human Services

Due: April 18, 2014

Submitted by:
National Council on Crime and Delinquency

EXECUTIVE SUMMARY

For more than 100 years, the National Council on Crime and Delinquency (NCCD) has been dedicated to improving social services practice. Across the county, NCCD works for genuine impacts by leveraging data to support best practice in child welfare, juvenile justice, financial assistance, and other social services. NCCD has an extensive and rich experience conducting research, translating that research into practice, developing and validating tools built on research, and developing and implementing predictive models, in addition to successful involvement working with human services practitioners at all levels of the state and county social services agencies.

NCCD proposes to assist the Allegheny County, Pennsylvania, Department of Human Services (DHS) in the sustainable development of a data-driven culture that values evidence-based decision making; makes proactive use of data to improve performance; and, most importantly, achieves positive outcomes for its clients. Taking into consideration the current project's objective to design and implement decision-support tools and predictive analytics for human services, NCCD proposes developing a framework and system for the continued integration of predictive algorithms and other analytics into the day-to-day workflow of agency staff that can grow and evolve as new questions arise. To accomplish this, NCCD will focus on developing the systems and processes necessary to ensure that county staff have decision-support tools that remain applicable, relevant, and useful in the long term.

The overall goal of this project is to improve service delivery to DHS consumers by using data to improve decision making. To accomplish this goal, NCCD has outlined five key project objectives: (1) prioritize and create a framework for project decision making; (2) understand data opportunities and constraints that exist within the data warehouse; (3) conduct predictive analytics and develop algorithms; (4) plan and develop a decision-support system; and (5) support a data-driven culture through continuous quality improvement and a problem-solving approach. To help engage decision makers and keep the process moving forward, NCCD will partner with Decision Lens, a privately held, cloud-based prioritization and resource allocation software company that provides a solution to organizations' critical decision making in strategic planning, portfolio prioritization, research and development, and resource optimization.

What makes the NCCD approach unique is that we create tools capable of showing each person the current status of each case for which he/she is responsible, which allows them to take action to correct issues long before they become problems. To the extent possible, NCCD will leverage any existing tools and technology currently in use by Allegheny County in the development of these systems such as tools that caseworkers and other staff already use; staff are more likely to be comfortable with them as a part of their regular workflow.

Key staff include Kathy Park, Dr. Jesse Russell, Dr. Timothy Connell, Kevin Loniello, Ganesh Ramasamy, Dan Feeney, Shannon Flasch, Chris Scharenbroch, Erin Wicke-Dankert, Colleen Kerwin, Supie Shea, and Alison Denton. The total budget for this project is $760,000.

INTRODUCTION AND STATEMENT OF THE PROBLEM

The National Council on Crime and Delinquency (NCCD) proposes to assist the Allegheny County, Pennsylvania, Department of Human Services (DHS) in the sustainable development of a data-driven culture that values evidence-based decision making; makes proactive use of data to improve performance; and, most importantly, achieves positive outcomes for its clients. To accomplish this, NCCD will focus on developing the systems and processes necessary to ensure that county staff have decision-support tools that remain applicable, relevant, and useful in the long term.

While the current project's objective is to design and implement decision-support tools and predictive analytics for human services, this project does not propose the development of one or two individual tools. Rather, it offers a framework and system for the continued integration of predictive algorithms and other analytics into the day-to-day workflow of agency staff. This framework leverages expertise, processes, and technology to grow and adapt to the changing needs of the county, creating maximum impact in both the short and long terms.

The proposed system offers a five-part framework.

1. An established process for defining requirements, setting priorities, and evaluating potential solutions.

2. An initial set of predictive algorithms and analytics that define a starting "toolbox" for future development.

3. A flexible, script-based system for applying analytical algorithms to current case data.

4. A flexible display system that allows analyzed case and caseload data to be integrated with existing case management and dashboard systems.

5. An ongoing continuous quality improvement structure that supports a data-driven culture and problem-solving focus.

The design and implementation will be grounded in lessons learned from prior efforts to use data to improve decision making, a deep knowledge of case practice, existing solutions and tools, and a commitment to translating research into practice. Through all aspects of the project—prioritizing and planning, working with resources in the data warehouse, establishing algorithms and conducting rigorous data analysis, developing practice implementation tools, designing an integrated display, and ensuing that continuous quality improvement feedback loops are in place—integration and effective use will be paramount.

NCCD's approach to this project will be to start with existing research, established decision-support tools, and known implementation practices to leverage the best from what already exists as a starting place. Through its decades of solution-focused work with data to develop

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and implement decision-support tools for human services, NCCD is well positioned to use data to improve decision making in service delivery improvement and in all DHS content areas.

ORGANIZATION DESCRIPTION

History and Experience

For more than 100 years, NCCD has been dedicated to improving social services practice. Across the county, NCCD works for genuine impacts by leveraging data to support best practice in child welfare, juvenile justice, financial assistance, and other social services. Some systems focus on business intelligence, with analytical tools that mine existing data to guide decision making at both the administrative and case practice levels. Other systems support case-level assessment to inform and support best practices in case planning, management, and service provision. All of these systems are mission-driven, using data to ensure that clients get the services they need, when they need them.

NCCD offers a wide array of expertise in research, evidence-based practice, and the use of data to improve practice. NCCD has conducted national studies in a variety of areas, including risk and needs assessments used in child protective services (CPS), juvenile justice, and other systems, and NCCD has recently completed research in disproportionate minority representation, child fatalities, and the association between CPS and delinquency at the county level.

SafeMeasures®, NCCD's flagship business intelligence tool, uses analytics to help social service agencies achieve better outcomes, improve services, and operate more effectively. Offered as a subscription-based service, SafeMeasures provides staff at all levels of the agency with advanced analytical capabilities. SafeMeasures leverages nightly extracts and advanced analysis of existing case management data to allow all staff to monitor performance, identify cases in danger of noncompliance, and focus on the tasks needed to achieve high performance. For example, SafeMeasures can show child welfare administrators whether they are meeting their contact compliance standards for open cases, as well as show historical trends. Unit supervisors and workers can identify specific cases that are out of compliance and see which cases have yet to be contacted so they can prioritize their work to meet standards.

For this project, NCCD will partner with Decision Lens. Decision Lens is a privately held, cloud-based prioritization and resource allocation software company that provides a solution to organizations' critical decision making in strategic planning, portfolio prioritization, research and development, and resource optimization. Decision Lens combines experts' judgments with data to establish priorities in an efficient, collaborative framework. Unlike static spreadsheets and unstructured boardroom table discussions, Decision Lens rapidly engages decision makers to achieve better outcomes in a resource-constrained environment. Driven by sophisticated analytics, the software allows organizations to identify and prioritize criteria that tie directly to their strategic goals.

Conducting Research

NCCD has an extensive and rich experience conducting research. For example, NCCD recently developed the Concurrent Planning Resource Allocation Assessment, using existing data to appropriately classify youth by the likelihood of a more timely reunification. Children classified by the tool as having a higher likelihood were found to return home within six months twice as often as other children were. NCCD consulted on assessment implementation in practice, conducted a follow-up validation of the assessment, and monitored practice fidelity. Assessment modifications were made to respond to changes in the county. Evaluation findings emphasized the importance of implementation fidelity and ongoing data monitoring.

NCCD conducted research on whether children entering foster care through Michigan agencies that were piloting a new case management procedure achieved permanency more quickly than they would have otherwise. A quasi-experimental (comparison of pilot sites with equivalent counties) design was used, and existing data from the Child Information System were used. The outcome studied was the percentage of children who achieved permanency within 15 months of their case opening date. Findings were that among post-implementation cases, children served by pilot sites were significantly more likely to have attained permanency within 15 months (odds ratio 1.46).

NCCD partnered with the New Hampshire Bureau of Elderly and Adult Services to study risk and protective factors for adult protective services (APS). NCCD used data and practice insights to develop the first ever actuarial risk assessment for APS. Research found that an APS risk assessment can identify clients at greater risk for subsequent self-neglect or abuse, neglect, or exploitation by another person. The resulting decision-support tool was found to be valid, and supervisors in New Hampshire reported that this information was useful in practice.

NCCD research found that clients who receive public assistance are often the same families who later appear on child protection caseloads, and vice versa. NCCD conducted research on whether the Temporary Assistance for Needy Families (TANF) applicants who were most likely to become involved with child protection could be identified. Research found that many child maltreatment risk factors that have been identified in the TANF population appeared in existing databases and could be used for decision support.

Translating Research Into Practice

Research alone is not meaningful unless it is translated into meaningful practice insights and effective implementation. NCCD works with child welfare, juvenile justice, adult criminal justice, education, and adult protective service agencies to help them use their data in support of broad system improvement efforts. Our analysts go beyond the numbers to work collaboratively with agency decision makers and staff to help to improve long-term outcomes, including safety, well-being, and community safety.

NCCD's approach is about using translating data findings into practice insights. Data can tell us about what we are doing, how well we are doing it, the impact we are making, and opportunities for system improvement. NCCD's data analysis services focus on actionable, useful results that can help guide an agency to more effectively serve the people who come into contact with it.

NCCD partnered with Cook County, Illinois, to revise their juvenile detention screening decision-support tool. The data-driven revision focused on the predictive validity of risk of recurrence. Following revision and validation activities, NCCD worked with the county to use existing data from the decision-support tool to identify youth appropriate for new warrant programming options.

NCCD partnered with Maryland's Social Services Administration to translate research on child protection screening support tools into reliable decision making in social services. NCCD conducted a field test of a screening decisions support tool designed to ensure the consistency of worker decisions about whether to screen in a report. Inter-rater reliability testing showed that the decision-support tool resulted in high rates of agreement among workers presented with the same case information. A pre- and post-implementation review of cases showed improved quality of case narratives and justifications. From these findings, NCCD worked with the Social Services Administration to develop an implementation plan, which included reviewing the decision-support tool and field test evaluation information with local agency directors; modifying the decision-support tool based on evaluation results and input from local agency staff; statewide training; and implementation assessment.

NCCD provides ad hoc analytics to member clients, focusing on on-demand, customized reports to answer specific questions posed by funders and administrators. We use powerful data and analytics tools, along with expert knowledge, to develop key practice insights that can be leveraged into better outcomes for children, youth, families, and adults. NCCD staff help clients answer their questions with data they already have. We create practical analyses that respond to agency needs. Under this framework, our analysts provide technical assistance and consulting to support ongoing accountability and quality improvement processes, illuminate agency decision structures and service populations, and improve practice to achieve strategic goals. One recent ad hoc analytics request examined potential target populations among child welfare system-involved families for a youth homelessness intervention. Data analysis and technical assistance focused on identifying subgroups and populations, potential intervention decision points, and key considerations for maximizing impact.

Developing/Validating Tools Built on Research
NCCD is a national expert on developing and validating practice support tools that are data-driven and based in research.

NCCD has worked with more than 100 human services agencies in the United States and internationally to develop and implement predictive risk models to inform practice, making

NCCD the leading authority on predictive risk modeling in child welfare. NCCD staff have extensive experience developing and evaluating decision-support tools for child welfare, juvenile justice, adult protective services, and adult corrections using actuarial and predictive analytics and agency data to develop valid, reliable, equitable, and useful predictive risk and decision-support models. Recent projects include those listed below.

NCCD conducted a validation of the California Child Welfare Risk Assessment to assess how well it estimates future maltreatment, particularly across subgroups, such as race/ethnicity. Results showed that the current risk assessment performs well as an estimate of future maltreatment—each step up in risk level corresponded with a clear step up in recurrence rates. Analysis results also suggested potential revisions that could improve classification abilities, particularly for Native American families. Potential adjustments to the current assessment to address these concerns were developed and tested against outcomes. The risk assessment was then applied to a validation sample to examine classification findings with a different sample. Because the analysis showed that the risk assessment can validly and accurately classify families according to their likelihood of future maltreatment, California counties can use the assessment with confidence to ensure consistency, target service interventions, reduce subsequent maltreatment, and increase the overall effectiveness of the child protection system.

NCCD assisted the Michigan Department of Human Services (DHS) Foster Care Program in developing a research-informed protocol on licensing and supporting foster care providers that includes a predictive risk model. The model's goal is to improve the safety and well-being of children placed in foster and relative homes. NCCD developed a placement-support model using predictive statistical methods for DHS to test and implement. The model includes an actuarial placement-support assessment; a placement safety assessment; and an assessment to help workers systematically assess caregiving capabilities relative to child needs in core child domains, such as child physical health, education, mental health and coping skills, social and communication skills, and transportation needs.

NCCD reviewed risk and needs assessment systems used in 10 different juvenile justice jurisdictions across the country in order to identify best practices and effective elements of these systems that lead to appropriate targeting of services. NCCD incorporated multiple perspectives into the evaluation, including researchers, agency administrators, and representatives of firms that developed and marketed some of the systems evaluated. The study considered the effectiveness of each assessment as well as the approaches, developments, evidence, length, and other characteristics of the assessments that may relate to their effectiveness.

<u>Developing and Implementing Predictive Models</u>
NCCD worked with Los Angeles County to study youth who "cross over" from the child welfare system to juvenile probation. Because youth who become involved in both systems experience especially poor outcomes, an opportunity to intervene for this group is critical. We used data fields from several existing assessments in Los Angeles County to profile common

risk factors, develop a pilot decision-support tool that creates an integrated display system flag for youth at high risk of crossing over, and supported ongoing evaluation and implementation fidelity.

To help California counties respond to mandates resulting from a recent lawsuit, NCCD conducted predictive modeling and decision-support tool development relating to trauma exposure and experience. NCCD used existing child welfare data to highlight children with trauma exposure and experience who are in need of mental health screening. The decision-support tool will help agency managers who are looking to improve the quality and effectiveness of services, despite limited resources, and could ensure that all children with a high likelihood of emotional and/or behavioral need receive a more comprehensive screening for trauma symptoms and/or therapeutic assessment and treatment.

To help Queensland better serve children in its child welfare system, NCCD is conducting predictive modeling using existing data to develop a data-driven tool to help determine appropriate case supports. The objective is to develop an empirical basis, using available data, for determining the level of support needed by individual children in foster care. The resulting data-driven support matrix will help ensure reliability and accuracy in making foster care child support level and placement decisions. The data-driven support matrix will also help determine the number of children classified at each level by region. Further, this information will help Queensland's Department of Communities, Child Safety and Disability Services assess whether each region's placement options are sufficient given the number of children in foster care within each support level.

NCCD designed and implemented a comprehensive child protection decision-support system for the Connecticut Department of Children and Families. NCCD collaborated with the state to develop a comprehensive case management system, including a screening assessment, response priority decision trees, a research-based risk assessment instrument, a family strengths and needs assessment, a reunification assessment, and other reassessment tools to guide decisions throughout the system. After implementation, NCCD provided CPS staff with technical assistance, management information reports, supervisory case reading training, and ongoing quality improvement support activities.

Relevant Experience Working With Human Services Practitioners
NCCD's mission is to promote just and equitable social systems for individuals, families, and communities through research, public policy, and practice. For more than 100 years, NCCD has worked with social services agencies to identify and implement system improvements that help protect children from abuse and neglect, create safe and rehabilitative justice systems for youth and adults, and address the needs of older adults and adults with disabilities.

NCCD's research-based, mission-driven services and assessment systems give social service agencies the benefit of a skilled and responsive team combined with powerful tools to help agency staff. Structured Decision Making® (SDM) systems help social service workers make

consistent decisions and focus resources on those most in need. Agency administrators and managers also can use SDM® data to monitor service delivery and client outcomes, ensuring that the agency moves in the right direction. The SafeMeasures analytic service helps social service workers, managers, and administrators improve performance. NCCD's acclaimed SafeMeasures team helps agencies get the most out of their data, motivating staff and creating the possibility of better outcomes for clients. The Juvenile Assessment and Intervention System™ and Correctional Assessment and Intervention System™ offer effective strategies for supervision through an evidence-based, gender-specific approach to better outcomes for justice-involved youth and adults. Both systems offer easy interfaces for staff working with offenders and data reports to help agency administrators target resources efficiently.

Nationally recognized for work in multiple social service domains, NCCD brings a broad mix of research, technology, and case practice expertise to each of its projects. NCCD offers a wide array of expertise in research, evidence-based practice, and data use to improve practice. This domain expertise is backed up by technical skill in system architecture, software development, and database design and management.

NCCD has extensive experience working with practitioners at all levels of state and county social services agencies. All of our projects involve direct interaction with service providers, their managers and executives, and/or technical teams.

- With each jurisdiction that uses SafeMeasures, NCCD establishes a core team that includes representatives from the executive, office management, supervisory, and line staff levels. The core team meets on a regular basis to prioritize analytical requests, guide methodology, and vet results. Their input also guides the development of new features and capabilities for the SafeMeasures display system. In fact, many of SafeMeasures' most helpful features were suggested by core team members or line staff users.

- NCCD staff are part of the California Department of Social Services (CDSS) Data Committee, which meets regularly to define reporting standards for all California child welfare agencies. We regularly share information and methodologies with analysts and researchers in agencies and often work with them to identify study cohorts, outcomes of interest, and outcome rates.

- NCCD works with each agency implementing the SDM system to review existing practice and determine the best way for that agency to integrate research-based assessments and evidence-based practice models into their organization. Assessments are customized using input from staff at all levels of the agency, and NCCD staff work closely with agency staff to ensure successful implementation.

- NCCD has provided training and technical assistance in scores of communities across the nation through projects funded by the Office of Juvenile Justice and Delinquency

Prevention. NCCD has facilitated community-based planning on youth violence prevention for the Asian and Pacific Islander communities in a number of cities. NCCD also offers community planning for counties to implement realignment in California, which has been triggered by overcrowding in state prisons.

- NCCD staff provide direct feedback and assistance to supervisors and staff in all of our program areas, including supervision and case consultation models.

Collaborative Projects With Partner Organizations
NCCD works with partners in collaboration, sometimes as a system integrator and often with academic institutions and professionals, such as the Center for Juvenile Justice Reform (CJJR) at Georgetown University. NCCD also works on an ongoing basis with other data and performance measurement projects, such as CDSS and the California Child Welfare Indicators Project.

For example, NCCD is working with Hilton Foundation, CJJR, and Los Angeles County in a coordinated effort to identify and flag youth involved with the child welfare system who might be at a greater risk of becoming involved with juvenile probation. Within the collaboration, NCCD is leading data and evaluation efforts while ensuring that all aspects of the project—including foundation goals, CJJR's practice model, on-the-ground practice implementation, and county-wide system improvement efforts—work in synchronicity to maximize impact on community safety and lead to greater youth success.

SafeMeasures is an NCCD business intelligence service that uses analytics to help social service agencies achieve better outcomes, improve service, and operate more effectively. Because SafeMeasures provides visibility to cases under analysis, users are able to question how and why specific cases are categorized. As a result, the users responsible for those cases have the tools to determine whether data is inaccurate. Users in a California county identified such an issue in the state's methodology for counting children in group homes. Because they could see the underlying cases, these users discovered that the methodology incorrectly categorized small family homes as group homes. NCCD staff worked with the CDSS Child Welfare Data Analysis Bureau; University of California, Berkeley analysts; and county representatives to identify the flaw in the methodology and release an update within 24 hours of the original question from county users. Statewide, this change is estimated to reduce the reported group home population by 5% to 6%.

NCCD is currently engaged with the Georgia Department of Juvenile Justice (DJJ). Working in partnership with the Annie E. Casey Foundation, the Division of Community Services (DCS), the Governor's Office for Children and Families, and an inclusive group of community stakeholders, NCCD is leading data analytics, decision-support tool development, implementation, and stakeholder engagement. As part of DJJ's juvenile justice reform efforts, NCCD is using data analytics, along with policy goals and consideration of local practices, to develop several new decision-support tools, including detention screening, dispositional decision-making support, and needs assessment. All aspects of this project have proceeded in

close collaboration. For each decision-support tool, an advisory group comprised of DJJ leadership and other stakeholders was formed. The groups helped guide the work and were actively engaged in workgroups for tool development, testing, and implementation. Throughout the project, a leadership group of representatives from NCCD, DJJ, DCS, and the governor's office met regularly to coordinate efforts, track progress, and ensure project success.

Working With DHS to Design and Implement Decision-Support Tools and Predictive Analytics
NCCD follows an agile development approach that maximizes flexibility and responsiveness to changes in requirements while maintaining schedule and budgetary constraints.

NCCD will partner with Decision Lens to manage the process of working with DHS, especially in decision making, prioritization, and resource allocation. Decision Lens' processes let organizations establish evaluation frameworks focused on key organizational objectives and the related decision criteria that drive the overall decision process.

Through its processes, Decision Lens is able to support multiple decision-making teams and decision models simultaneously within an organization. Decision Lens offers multiple collaborative methods so participants and facilitators can contribute locally or remotely to decision processes from anywhere in the world.

In conjunction with NCCD, Decision Lens will guide stakeholder and project leadership groups through the process of determining requirements, identifying priorities, and refining criteria that will drive data exploration, analytic and algorithm development, implementation planning, and display integration. While working with Decision Lens, NCCD will remain in active engagement with DHS, including regular communication, reporting, and an onsite presence.

NCCD and DHS will identify a project core team of DHS leadership, agency representatives, and other Allegheny County leaders, which will guide and manage all aspects of the project. NCCD, in partnership with Decision Lens, will work with the core team to solidify overall project goals and specific objectives, prioritize efforts, allocate project resources, develop a rigorous work plan, and ensure consistent and effective project progress.

Further, a specific work group may be convened to offer guidance across all work tasks for each decision-support tool opportunity prioritized. The work group will offer local practice expertise and advice to inform how data can be leveraged for meaningful practice insights. Also, rather than start from scratch when not necessary, NCCD will rely upon its extensive knowledge of existing tools and the field to identify prior research, analyses, and tool development that can be leveraged for each decision point under consideration for the current project.

NCCD will work with the core team and any work groups to identify potential input and output factors from available data fields and to identify requirements and decision-support needs. We will then consider modeling options, conduct analyses, and develop algorithms. Analysis findings and draft algorithms will be shared and vetted with the core team, revisions and refinements will be made, and algorithm scripts will be developed for integration with the decision-support system.

Once the decision-support system is developed and ready for use, the individual decision-support algorithms will be built into the system and integrated with Allegheny County IT and practice.

Through all aspects of the project, NCCD will work in close collaboration with DHS. The prioritization process will rely on DHS to establish priorities to drive the project toward its goals and objectives. NCCD and DHS will together explore the data warehouse's opportunities and challenges, including building the initial analysis cohorts. We will provide detailed memos describing all analytical findings and algorithms developed and present, discuss, and vet findings in person or via web meeting. Through the decision-support system planning and development process, NCCD will work with county staff to define needs, assess existing capabilities, and identify gaps, resulting in a system and platform for use by all DHS departments. And across all aspects of the project, NCCD will support a data-driven culture focused on continuous quality improvement and solution-focused problem solving.

Working With an Existing IT Vendor to Implement/Integrate Solutions
NCCD has a long and successful history of working with IT vendors to integrate assessments, decision-support tools, and other best practice supports into a variety of case management systems. Our success comes from the recognition that bringing multiple teams together to share expertise is the best way to create a seamless, resilient integration while minimizing overall cost and effort.

NCCD has developed a number of custom components and applications to support its various projects. We work with vendors and agency IT departments to integrate these tools into their existing case management systems. In other projects, NCCD staff have developed requirements, specifications, design documents, and test protocols that support integration by a vendor or agency development team.

In general, our integration approach focuses on maximizing utility for the end user while minimizing effort for the development team. To this end, NCCD often leverages its experience and development expertise to create "plug-in" components that work seamlessly with an existing case management system. In most cases, these components share data with the case management system, usually by storing and reading data from the same database. The case management system is often modified to allow user credentials and other data to pass directly from the host system to the component, removing any need for duplicate data entry.

When developing such components, NCCD staff work closely with agency staff to identify the core data elements and functions to be shared. NCCD also works with agency developers to design and implement an interface that will allow the component to integrate with the case management system and pass data securely. NCCD and agency staff also work together to develop training and support materials that allow agency staff to use and manage the component effectively.

In design and consultation projects, NCCD's role is to act as content specialist and/or expert resource. In some cases, this involves working with agency or developer staff to create requirements and/or specifications and review designs. In others, NCCD staff have led the design process, creating requirements, specifications, design documents, and acceptance test plans. NCCD staff also have been called upon to review and critique requirements, specifications, and design documents developed by others.

All integration projects require NCCD staff to coordinate with both policy/practice and IT teams, balancing time and budget constraints against the requirements of best practice while ensuring that each group's needs are met. NCCD often plays the role of arbiter and translator, especially when a third-party developer is involved. Our knowledge and expertise in both practice and software development often allow us to clarify and resolve issues before they become problems.

Examples of these approaches can be found in two different integration projects.

The SDM® System for Louisiana
NCCD developed a suite of SDM decision-support tools for the State of Louisiana Department of Child and Family Services (DCFS) Child Welfare Division. As part of this project, caseworkers were required to complete an assessment of the family's risk of future abuse for each investigation they completed. The results of this assessment were used to determine downstream case management actions. Other assessments were also developed. NCCD's application development team created Internet-based versions of these assessments, hosted on a secure development and hosting platform that was constructed in-house. NCCD staff worked directly with staff from Curam, the DCFS case management system vendor, and with DCFS staff to create a seamless method for caseworkers to complete these assessments from within their case management system.

Using NCCD-developed code modules to encapsulate and encrypt user credentials and case data, Curam staff developed model code that allowed users to press a button in the case management system to open the desired assessment. DCFS staff then integrated this code into their version of the case management system. Once an assessment request is received, the NCCD application uses the encrypted user credentials and case data to authenticate the connection, open the correct assessment, and prefill the appropriate items. When the assessment is saved, the application packages the data as an XML document and submits it to a secure web service established by DCFS staff. The received data is then parsed and

integrated into the case management system, where it can be used to guide case management decisions.

This project required all three teams to develop and agree to multiple interfaces and application programming interfaces (API), beginning with the way data was passed to the encapsulating routines to the XML schema for returned data. Each team was able to leverage its expertise to create a seamless user experience for the least cost and effort.

Washington, DC
The Washington, DC Child and Family Services Agency (CFSA) also uses SDM to support child welfare practice. CFSA staff elected to integrate the SDM assessments directly into their case management system, including a major redevelopment of the case planning module. To support this integration, NCCD staff worked with staff from CFSA and Deloitte, the case management system developer, to create requirements, specifications, and design documents. NCCD staff also developed testing plans and were responsible for final certification testing.

All three teams worked together to conduct joint application design sessions and gather requirements, and spent a great deal of time identifying the optimal integration points in the user interface, data structures, and business logic. Onsite meetings and remote screen-sharing technologies helped develop relationships and ensure everyone was on the same page. When it became obvious that true integration would require extensive rework of multiple additional modules, each team worked with its executives to ascertain how to achieve that goal with minimum disruption to either schedule or budget. Flexibility, cooperation, and creative design led to a solution that achieved the integration goals without extending the schedule or exceeding the budget.

PROJECT DESCRIPTION

Project Goals and Objectives
The overall goal is to improve service delivery to DHS consumers by using data to improve decision making. Specifically, the objective will be to design and implement a decision-support system to integrate predictive analytics for DHS practice implementation and potentially inform the human services field.

Five project objectives are outlined: (1) prioritize and create a framework for project decision making; (2) understand data opportunities and constraints that exist within the data warehouse; (3) conduct predictive analytics and develop algorithms; (4) plan and develop a decision-support system; and (5) support a data-driven culture through continuous quality improvement and a problem-solving approach. Each of these five objectives are described below.

Prioritize and Create a Framework for Project Decision Making
Decision Lens will be critical to this objective. With the Decision Lens framework, we will guide critical decision making on predictive analytics and decision-support tool development. The Decision Lens approach will help DHS navigate among the multitude of potential questions, or among the specific 13 examples of relevant questions listed in the Request for Proposal. It will answer questions on where to start, what to prioritize, and how to allocate project resources.

Understand Data Opportunities and Constraints That Exist Within the Data Warehouse
Because the data warehouse serves as a secure central repository for more than 15 million client records from 384 agencies, using nearly 30 software applications, it allows for analysis of a multitude of both short-terms and long-term human services decision points. One of the most important opportunities and key challenges for this project will be to turn the theoretical opportunities of the data warehouse and silo integration into tangible, real-world, comprehensive, and accessible strategies to establish new analytical modes, decision-making supports, and practice improvements.

Because the data warehouse has more than 15 million client records (supplied from more than 17 internal and 10 non-DHS data sources), DHS needs more than a suite of analytical tools to connect to, extract, and analyze the data. Analytical tools alone can neither tackle all the data opportunities present in the warehouse nor immediately apply all those data opportunities to specific critical decision-making points. Recognizing that multiple agencies often serve the same children and families, NCCD will work with the Allegheny County core team to explore data in the warehouse to directly inform which content questions and critical decision points might be leveraged with data for practice supports and improvements.

Conduct Predictive Analytics and Develop Algorithms
Based on the prioritization that will be facilitated with Decision Lens, the data warehouse opportunities and constraints that will be identified, and the specific decision-support tool options that will be identified, NCCD will establish the most appropriate algorithms and modeling options for the task. Potential algorithms and models might include: random forest modeling, classification and regression trees (CART), Bayesian inference, neural networks, regression analysis, logit models, and event history models (e.g., survival and hazard models), among others.

Plan and Develop a Decision-Support System
To have any impact, the results of predictive algorithms and analytical reports must be communicated to those who can take action on the information they provide. NCCD believes that to be effective, this information must be both up to date and available. This means line staff and supervisors need to have this information available as they work with clients.

NCCD's goal is not to build one or two tools that are focused on specific issues. Rather, we propose the development of a system or platform that can grow and evolve as new questions arise. NCCD envisions a three-part platform.

1. A flexible analytical engine to run algorithms against current cases and the data warehouse. This engine would be developed using a plug-in architecture that would allow algorithm scripts to be created, modified, used, and retired without changes to the engine itself.

2. A data repository that holds the analyzed output from the analytical engine. This analyzed data would then be available to any process of system that can access the repository.

3. A dedicated display system that provides an interface to the analyzed data for existing case management and other tools, as well as aggregate reports.

Some of these elements may already exist in Allegheny County. To the extent possible, NCCD will leverage any existing tools and technology in the development of these systems. The Decision Lens process will be used to guide a thorough review of available technology and to develop specifications for any system needed to fill in the gaps.

Support a Data-Driven Culture Through Continuous Quality Improvement and a Problem-Solving Approach
As a trusted partner in an agency's efforts to improve outcomes, NCCD works with agency staff to create a collaborative environment focused on solving problems. Our team of acclaimed analysts, researchers, and practitioners use their expertise and experience to help the agency and its staff achieve desired outcomes.

The core of NCCD's problem-solving approach is in understanding that positive outcomes are the result of actively and effectively managing practice. This cannot be done by looking backward at outcomes from three, six, or 12 months ago. The most direct path to improvement is to monitor what is happening now by making specific, frequently updated indicators of current status available to all staff.

What makes the NCCD approach unique is that it goes beyond creating graphs and tables. These tools show each person the current status of each and every case for which he/she is responsible, which allows them to take action to correct issues long before they become problems.

NCCD's goal is to make data meaningful and useful at every level of an agency on a daily basis. To this end, we focus on operational issues that help agencies achieve their outcome and performance objectives. As the Annie E. Casey Foundation stated, this provides the information necessary to create meaningful change.

> [NCCD's] support to improve the state's capacity and expertise in collecting and analyzing data was a huge part of what made transformation successful. Virginia went from having no useful statewide system to one that was delivering excellent data to all localities across the state.—Annie E. Casey

Foundation. (2010). *Back on track: Transforming Virginia's child welfare system.* Baltimore, MD: Author.

Service(s)/Consultation
As noted above, there are five project objectives: (1) prioritize and create a framework for project decision making; (2) understand data opportunities and constraints that exist within the data warehouse; (3) conduct predictive analytics and develop algorithms; (4) plan and develop a decision-support system; and (5) support a data-driven culture through continuous quality improvement and a problem-solving approach. Services provided will focus on these five objectives.

Prioritize and Create a Framework for Project Decision Making
The first step is for the Decision Lens team and core team to conduct a kickoff meeting. The kickoff meeting sets a vision for how the organization will engage with Decision Lens and what they can expect. After the kickoff, the Decision Lens team develops a training plan and introduces the customer to Decision Lens University (DLU). DLU offers customers a fast and seamless onboarding and training program. Key milestones, tasks, stakeholders, and timelines will inform a project plan. The process will need to be reviewed with all stakeholders involved to ensure clarity of purpose, assignments, and buy-in.

The process, in brief, is to first initiate the process and begin planning for how data in the warehouse might be considered, practice questions prioritized, and project resources allocated among topics questions and practice needs, along with algorithm, analytics, and decision-support tool options. After process initiation, the process will move on to stakeholder buy-in through participation and process transparency. Decision Lens will then validate the decision criteria with the core team and with NCCD. The next step will be to establish pairwise priorities among criteria. Data will be gathered and alternatives rated, and then analysis will begin. After results are interpreted, Decision Lens will work with the core team and NCCD to optimize resources according to the priorities established by Allegheny County.

Understand Data Opportunities and Constraints That Exist Within the Data Warehouse
Exploration of the data will identify its strengths and weaknesses. To fully understand the opportunities and constraints that exist within the data warehouse, NCCD will establish an analysis cohort, starting with each of the nine human services agencies. Cohorts are standard starting places for predictive analysis with human service agency data and allow for agreeing on a particular unit of analysis based on a specific data element. Typically, cohorts can be individuals, families, or events measured in a given period of time (either point in time or period start, end, or open any time cohorts). Cohorts serve as a basis for understanding general populations available for query and provide good starting points for predictive analysis, target population identification, ad hoc analysis, and general research. The nine analysis cohorts will help establish a common conceptual framework for the analysis and will provide a tangible opportunity for NCCD to explore the data.

Conduct Predictive Analytics and Develop Algorithms
NCCD will conduct analytics to develop predictive algorithms for the decision-support opportunities prioritized. NCCD will consider algorithmic, machine learning, predictive analytics, and traditional approaches. This effort will create a bridge from the identified question, the practice support opportunity, and the data opportunities and constraints relating to that question. The approach will ensure that the right method is selected for the data and for the question so that the result will be effective for practice and outcomes. Specific modeling options may include random forest modeling, CARTs, Bayesian inference, neural networks, regression analysis, logit models, and event history models (e.g., survival and hazard models), among others.

Once data fields and models are selected, NCCD will explore model specifications, fully explore underlying data distributions, identify loss functions (i.e., how model effectiveness will be judged), establish validation criteria, and select samples and cohorts. NCCD will then run and train multiple models. Model results will be evaluated according to the criteria established. We will either identify a best model from the results, combine several models, or recalibrate the specifications and run new models.

Algorithm development will be data-driven and will also include consideration from local practice, policy goals, and broad system improvement efforts. Analytical findings will be written up as a detailed memo, which will be shared with the core team and presented by NCCD either in person or via web meeting. The goal of sharing the findings will be to ensure the results are fully understood, objectives were met, and results are interpreted appropriately according to local practice.

Plan and Develop a Decision-Support System
In Allegheny County's child welfare service, SafeMeasures provides an avenue for providing staff with timely, actionable information. SafeMeasures could also be used to distribute the results of the analyses developed under this project, especially if they apply to child welfare or any other department already using SafeMeasures.

Departments not using SafeMeasures, or those that want the analytical information integrated into their case management systems, will need another solution. NCCD will work with Allegheny County staff and vendors to assess their display requirements and identify the display and distribution technologies already available within the county. Using the Decision Lens process and expertise developed through more than 15 years of SafeMeasures work, NCCD staff will work with core stakeholders to specify and develop a display system that will work across departments.

A core element of the display system will be an interface or API that allows existing case management systems to access analyzed information on a case-by-case or caseload basis. This will allow seamless integration of the analytical information into case management practice.

The display system will also provide a stand-alone platform to view and browse through the data. Borrowing heavily from experience with SafeMeasures, NCCD will design a system that will allow aggregate information to be viewed at the agency, office, unit, and caseload levels. Additional factors will be identified to allow users to view data in pieces as best meets their needs.

Support a Data-Driven Culture Through Continuous Quality Improvement and a Problem-Solving Approach
With Decision Lens, NCCD will help Allegheny County develop and sustain a data-driven process for identifying and prioritizing needs, as well as for choosing among the many possible solutions to those needs. This collaborative, solutions-focused, problem-solving approach will be used throughout the project to build consensus and ensure the project stays relevant and targeted. At the same time, DHS staff will learn the process and tools, creating a local expertise that can sustain these efforts long beyond the project's end.

This knowledge transfer does not stop with the core team. The data-driven focus will also apply to all aspects of project oversight, ensuring integration of efforts, a focus on long-term goals, timely completion of tasks and deliverables, and meaningful collaboration.

The data analysis and display system that will be developed as part of this project will also contribute to the development of a data-driven quality improvement culture by making concrete, actionable information available to those who can best act on it. Through the display system and its interfaces to other systems, staff can leverage predictive and other analytics to identify clients with the greatest need, link clients with the services that will best fit those needs, and be proactive in their approach to managing performance and outcomes.

In the end, the goal is not to create one or two tools. Instead, this project will create a framework that will help Allegheny County instill a data-driven, problem-solving culture that is focused on relevant, applicable issues and open to enhancements that will drive quality improvement long into the future.

Program Integration With Other Information Technology and Tools
It is imperative to have a mechanism for applying analytical algorithms to open and active cases and then displaying those results so users can take action. To the extent possible, tools that caseworkers and other staff already use are preferred, as staff are more likely to be comfortable with them as a part of their regular workflow. To this end, NCCD will work with DHS staff and vendors to assess the existing infrastructure, identify what resources are available, and develop a detailed design and proposal for implementing an analytical engine and display system that will integrate with existing systems.

As a first step, NCCD and Decision Lens staff will work with the county to identify an appropriate group of stakeholders, encompassing line, supervisory, and executive staff; IT staff; vendor representatives; and others. Using Decision Lens processes, this stakeholder

group will develop a set of requirements for the analytical engine and display system, including any API/interfaces with other systems.

At the same time, NCCD staff will work with DHS staff and vendors to survey the existing technological infrastructure, identifying potential candidates for analytical processing and the storage and display of results. This team will also identify potential points of integration with the appropriate case management or other decision support systems. The resulting document will identify the pros and cons of available technologies and enumerate any gaps that exist.

Working with a core group of stakeholders, NCCD will coordinate the development of a set of options for implementing an analytical engine as well as a system for storing and displaying the results. Options will be prioritized using the previously developed requirements and the Decision Lens process, leading to the selection of an ideal option.

NCCD will develop detailed specifications and design for the selected option, as well as a budget, timeline, and proposal for implementation. While NCCD would be able to handle all aspects of the resulting development project, individual tasks could be distributed among NCCD, the county, and vendor staff as appropriate.

Note that information directed at child welfare staff may be delivered using SafeMeasures, which is already in use by the CPS department and has the ability to display the caseload for an individual staff person and flag specific cases for upcoming or past-due tasks. This functionality may be leveraged to communicate analytical results to the line workers best placed to take advantage of them.

Any display system designed by NCCD would provide much the same sort of functionality to staff who do not use SafeMeasures. This would include the ability to log in and see a list of assigned cases, along with flags indicating various analytical results for each case. Other views would include aggregate counts of cases within each analytical group. The display system would allow users to filter and cross-tabulate each aggregate measure by office, unit, and caseload, as well as view a list of cases in each analytical group.

In addition, any such system would include an interface, API, or other method for access and integration into other existing case management and/or dashboarding systems. This interface would allow access to analytical results by individual case or by caseload. Aggregate results would be available by caseload, unit, or office. The details of this interface would be worked out in conjunction with Allegheny County and vendor staff.

Design and Development Timeline

Kickoff
The first step of the project will be to initiate a kickoff meeting. This meeting will introduce all parties and stakeholders, establish understanding of the draft work plan, achieve consensus on overall project goals and aspirations, and establish next steps.
(Completed within Month 1.)

Data Opportunities
NCCD will explore the data warehouse, develop an understanding of the data dictionary and warehouse structure, and develop initial analysis cohorts for each of the nine human services agencies.
(Completed by end of Month 2.)

Decision Lens Process
Through the Decision Lens process, NCCD and DHS will establish a project decision-making structure, decision-support priorities, and resource allocations.
(Completed by end of Month 3.)

Specification of Decision-Support System
NCCD will establish the specifications for a decision-support system to be the analytical engine and integrated display.
(Completed by end of Month 5.)

Development of Decision-Support System
NCCD will built a decision-support system and integrate it with existing Allegheny County information technology.
(Completed by end of Month 11.)

Analytics and Algorithm Development
For each selected decision-support opportunity, NCCD will:

- Map the decision-support opportunity in terms of agency processes, department guidelines, and established protocols;

- Identify data elements, select model options, conduct analysis, and develop an algorithm;

- Share results with the core team and any applicable work groups for understanding, vetting, and establishing next steps; and

- Create algorithm scripts for the decision-support system and display integration.

From Month 4 to Month 11, one algorithm will be developed. (Note: Based on analytic results and core team feedback, some algorithms may not be adopted for implementation.)

Ongoing Support
NCCD will provide ongoing support and technical assistance for use of the integrated decision-support system and for future algorithm development.
(Ongoing through Month 12.)

Previously Developed Tools/Systems
SafeMeasures, NCCD's flagship business intelligence tool, uses analytics to help social service agencies achieve better outcomes, improve service, and operate more effectively. Offered as a subscription-based service, SafeMeasures provides staff at all levels of the agency with advanced analytical capabilities. SafeMeasures leverages nightly extracts and advanced analysis of existing case management data to allow all staff to monitor performance, identify cases in danger of noncompliance, and focus on the tasks needed to achieve high performance. For example, SafeMeasures can show child welfare administrators whether they are meeting their contact compliance standards for open cases and show historical trends. At the same time, unit supervisors and workers can identify specific cases that are out of compliance. They can also see which cases have yet to be contacted in order to prioritize their work to meet the standard.

What sets SafeMeasures apart is that it is not just software—it is a comprehensive data analysis and reporting service. SafeMeasures starts with a group of experts in child welfare, juvenile justice, and other social service areas; a team of responsive, engaged analysts; a fully staffed helpdesk; a solid model that continuously monitors feedback for the purpose of improving, modifying, or adding reports; and an easy-to-use, flexible display to deliver consistent, useful information to administrators, supervisors, and staff. With SafeMeasures, NCCD provides the complete package of knowledge, expertise, and technology needed to help agencies improve performance.

Allegheny County DHS Office of Children, Youth and Families uses SafeMeasures to help improve performance, which means that our analytical staff already has a detailed understanding of county practice and how Key Information and Demographics System (KIDS) data is organized. SafeMeasures is also used in all but two California county child welfare agencies, as well as CDSS. It is also used statewide in New Jersey and Virginia for child welfare and in Maryland for juvenile justice. All told, SafeMeasures helps more than 30,000 social workers achieve their performance goals.

In addition to SafeMeasures, NCCD has a long history of developing integrated decision-support tools to assist social services workers in assessing risk, identifying needs, and developing service plans. These tools have taken a number of different forms but all serve to support SDM implementation in a variety of different domains across multiple states, countries, and case management systems.

There are different versions of the SDM system for different systems, including child welfare, foster care and placement support, adult protection, TANF, and Welfare-to-Work. All share a common goal of using research- and evidence-based tools to help agencies and workers make better decisions about the clients they help. Oriented around key decisions points in case practice, SDM uses structured assessments to improve the consistency and validity of each decision. These assessments, and their underlying analytical algorithms, are custom-designed for each jurisdiction to focus and support decisions that improve the delivery of appropriate services and reduce the likelihood of subsequent harm.

NCCD has developed a number of different SDM implementations for a variety of states and agencies. Often, NCCD is asked to build an interim solution while the SDM system is being incorporated into an agency's case management system. Because of our expertise, experience, and focus on developing task-specific systems, NCCD is able to develop an interim solution on a timeline and budget that allows for SDM system adoption on the social workers' schedule, not the case management development schedule.

Examples of previously developed tools/systems can be found in Appendix A.

Staffing Plan
Kathy Park, vice president of NCCD, coordinates programmatic efforts and organizational operations across NCCD's offices in Madison, Wisconsin; Oakland, California; and Washington, DC. She provides direct oversight and support for the program and policy, research and data services, technology, and communications teams in the Madison office, including CRC and SafeMeasures. Ms. Park has devoted her entire professional career to making a difference in the lives of adults and children impacted by abuse and neglect. Her experience includes provision of direct services, technical assistance and training, research, and policy in child and adult protection. In 1992, inspired by a desire to prevent youth from escalating within and across the child welfare-juvenile justice-adult corrections systems, she began working as a child protective services front-line investigator with the Georgia Department of Human Resources, then went on to work in ongoing family preservation, supervision of a blended child and adult protection unit, and at the state's protective services policy unit.

In 2000, she joined NCCD and has worked in partnership with numerous state and local social service agencies across the United States and internationally on the development and implementation of SDM decision-support systems for child welfare, adult protection, and economic support programs to improve reliability, validity, and equity of assessment practices. She has a BA in psychology and an MA in organizational management.

Dr. Jesse Russell, director of research, and **Dr. Tim Connell**, director of application development, will serve as co-principal investigators and project managers. Together, they will provide direct oversight and supervision of project staff, project deliverables, collaboration with partners, and reporting.

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Dr. Russell leads NCCD's applied research analytics group. He has a BA from Dartmouth College, a MA in economic policymaking, and PhD in comparative political economy from the University of California, Santa Barbara. From 2006 to 2009, he served assistant professor at Seton Hall University. From 2009 to 2012, he was manager of research and evaluation for the National Council of Juvenile and Family Court Judges. Dr. Russell's research and teaching have focused on advanced statistical analysis, and he has published articles on applying predictive analytics techniques. Currently, Dr. Russell facilitates research efforts relating to a broad array of local, statewide, and national projects, and his work appears in journals such as *Judicature, Children and Youth Services Review, Journal of Juvenile Justice*, and *Applied Economics*.

Dr. Connell brings a unique combination of statistical analysis, research design, and software development skills to NCCD, where he focuses on creating innovative systems that help users leverage information to make better decisions and improve practice. Dr. Connell draws on his background in educational research and software development to design and create easy-to-use software that meets the needs of users and researchers.

Dr. Connell is the designer and developer behind SafeMeasures, NCCD's analysis and reporting service. He also designed and developed the SDM applications embedded within a number of state child welfare case management systems, as well as the framework for NCCD's numerous web-based data collection and assessment applications. He also brings expertise in GIS systems, mapping, and spatial analysis to NCCD.

Kevin Loniello is a senior programmer at NCCD and manager of the SafeMeasures Analytics team. He specializes in the design, implementation, and maintenance of SafeMeasures reporting systems. Kevin has extensive experience with database programming, data analysis, project management, performance tuning, and technical support, and he oversees reporting for several agencies in California, Virginia, Pennsylvania, and New Jersey.

Ganesh Ramasamy is a system engineer at NCCD, working as a software architect and developer for SafeMeasures and data collection applications. He has experience designing and developing reporting infrastructure applications using various technologies, such as ASP.NET, C#, Java, SQL, and SAP BusinessObjects BI tools. He has participated in design consultation to build SDM assessments into case management systems. Mr. Ramasamy manages the application development team and leads the development effort.

Dan Feeney is a database/systems administrator for NCCD. Mr. Feeney has experience managing multiple database platforms, programming in procedural as well as object-oriented languages, and administering web applications that support agency activities. He joined NCCD in 2003 as a web application developer, working on web-based implementations of the SDM system. In 2005, he joined the SafeMeasures team as a database administrator, implementing clustering and other high-availability technologies to improve systems reliability. He currently supports the agency's technical activities by overseeing the database administrators team, developing data extract and load procedures, and

collaborating with senior application architects to design new systems. Mr. Feeney has a bachelor's degree from the University of Wisconsin–Madison and is an Oracle Certified Professional.

Shannon Flasch, an associate director of CRC, joined NCCD in 2007. The primary focus of her work since that time has been the development and implementation of SDM systems in child protection, adult protection, and Welfare-to-Work. Ms. Flasch is particularly interested in partnering with agencies to improve service planning with families and individuals.

Prior to this, Ms. Flasch worked with the William T. Grant Foundation on building a body of knowledge about youth developmental settings. She received her MPA from the Wagner School of Public Service at New York University in 2006.

Chris Scharenbroch, a researcher with NCCD, has extensive experience with data analysis, data collection, and technical support. He has worked on a variety of projects, including risk assessment analyses for child protective services agencies in Minnesota; California; and Queensland, Australia, and has developed SDM data management reports for jurisdictions in Minnesota, California, New Jersey, Virginia, and Queensland. He is the primary analyst for NCCD's ad hoc analytics and reporting service.

Erin Wicke Dankert is an NCCD researcher and analyst with extensive experience in data manipulation, analysis, decision-support tool development and validation, and translating analytic results to practice insights. Ms. Wicke Dankert led the highly successful recent California child welfare risk assessment validation and revision efforts. She will be responsible for data collection, analysis, and results presentation, including data visualizations.

Colleen Kerwin, NCCD researcher and analyst, will provide project support through all phases. She will track data manipulation history in a data log, manage data files and outputs, and ensure all aspects of NCCD's data security protocol are followed. Ms. Kerwin will assist in producing results write-ups, data visualizations, and technical notes.

Supie Shea, director of client decision management for Decision Lens, provides user training, group facilitation, and decision-making support to a diverse portfolio of commercial and government customers. An experienced facilitator with expertise in collaborative decision making, Ms. Shea assists clients in prioritizing opportunities, allocating resources, and driving positive change management within their organizations.

Prior to this, Ms. Shea was a senior sales engineer for a global technology and IT consulting company. Her focus was on enterprise asset management and service desk solutions for public sector and education clients—a list that included state/local government, transportation, public utilities, and higher education. Prior to that, she worked with enterprise resource planning solutions at both global and boutique companies.

Ms. Shea graduated with a BFA from Washington University in St. Louis, Missouri.

Alison Denton, a senior client decision manager for Decision Lens, is currently leading project prioritization engagements with the Pennsylvania Department of Transportation (DOT), Delaware DOT, and Mississippi DOT. Prior to joining Decision Lens in 2012, Ms. Denton served as a facilities planner and the director of facilities planning for Arlington Public Schools. Ms. Denton will be responsible for initiating and facilitating all interactions between stakeholders and the Decision Lens tool and will be responsible for providing training.

Full resumes can be found in Appendix B.

REFERENCES

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Appendix A

SafeMeasures® Overview
Examples of Relevant Projects
Previously Developed Tools/Systems

SafeMeasures® Overview

SafeMeasures® is a unique and innovative Internet-based reporting service from the National Council on Crime and Delinquency (NCCD), a global non-profit research organization. SafeMeasures uses analytics to help social service agencies achieve better outcomes, improve service, and operate more effectively. Child welfare and juvenile justice agencies use SafeMeasures to obtain detailed reports and other metrics created from nightly analyses of case management data. With SafeMeasures, NCCD leverages its knowledge and expertise in data analysis to help its clients manage children receiving protective, foster care, and juvenile services.

SafeMeasures was first introduced in California in 2000 and has been instrumental in improving agency performance and child outcomes. SafeMeasures is also used by Virginia, New Jersey, Allegheny County (Pittsburgh), and Maryland to better manage their child welfare and juvenile justice systems.

Figure 1: SafeMeasures Menu
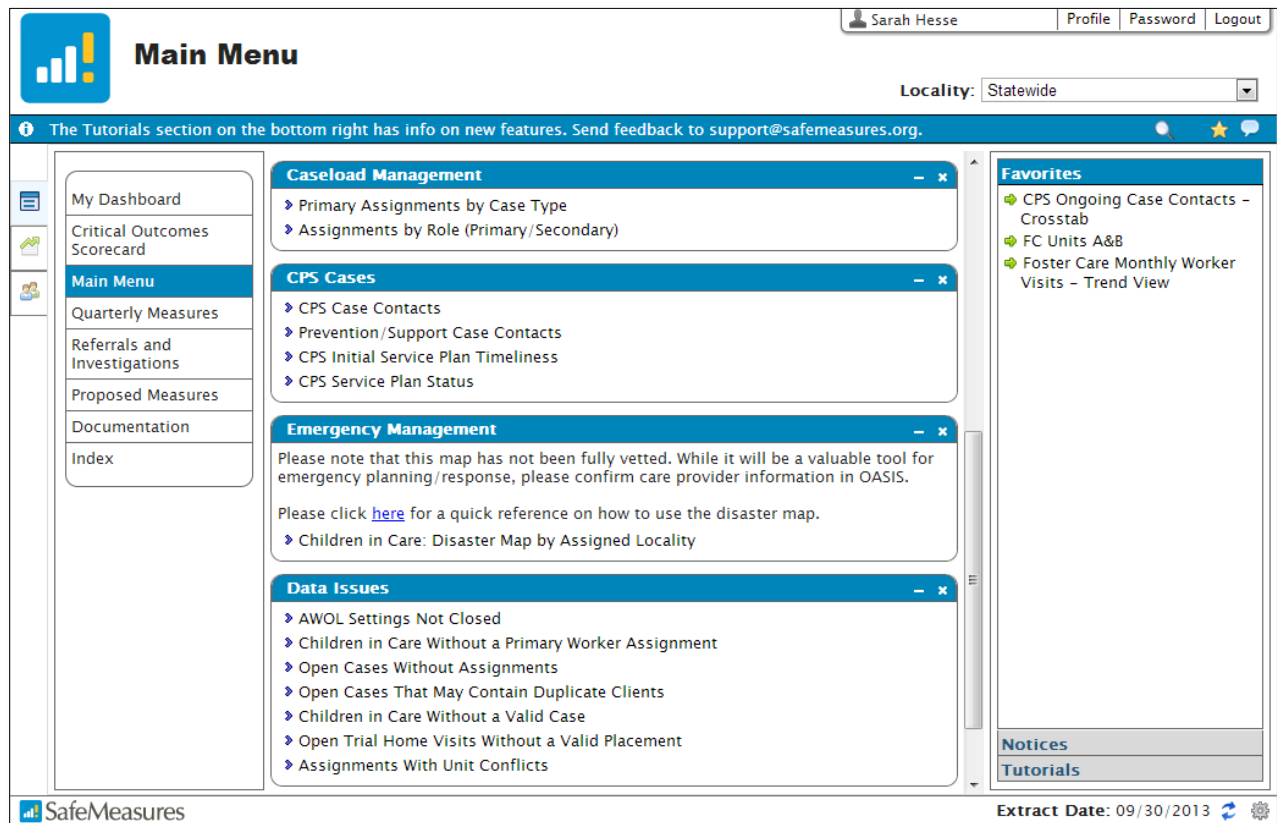
Figure 1 above shows a segment of the SafeMeasures menu for Virginia Department of Social Services (VDSS). VDSS currently has access to about 100 SafeMeasures reports, with topics ranging from timeliness of referral contacts to the names and addresses of foster children in proximity to active natural events. While the majority of reports are the same for all users in a jurisdiction, some

jurisdictions (e.g., California) may have additional, customized reports for certain counties or may have the standard reports modified to meet their individual needs.

Most reports are structured like the example in Figure 2. This report shows both longitudinal and point-in-time data for a key VDSS metric, Foster Care Monthly Worker Visits. Users may view the data at the statewide level or filter it down to any level of the agency, from a county to an individual caseload. The report also provides alternate views of the data, such as crosstabs and office, unit, and caseload comparisons. Users may also drill into the charts and tables to view detailed lists of the cases that make up each category. Because data is analyzed nightly, reports provide up-to-date information, enabling managers to ensure work assignments are completed on time and in accordance with agency standards.

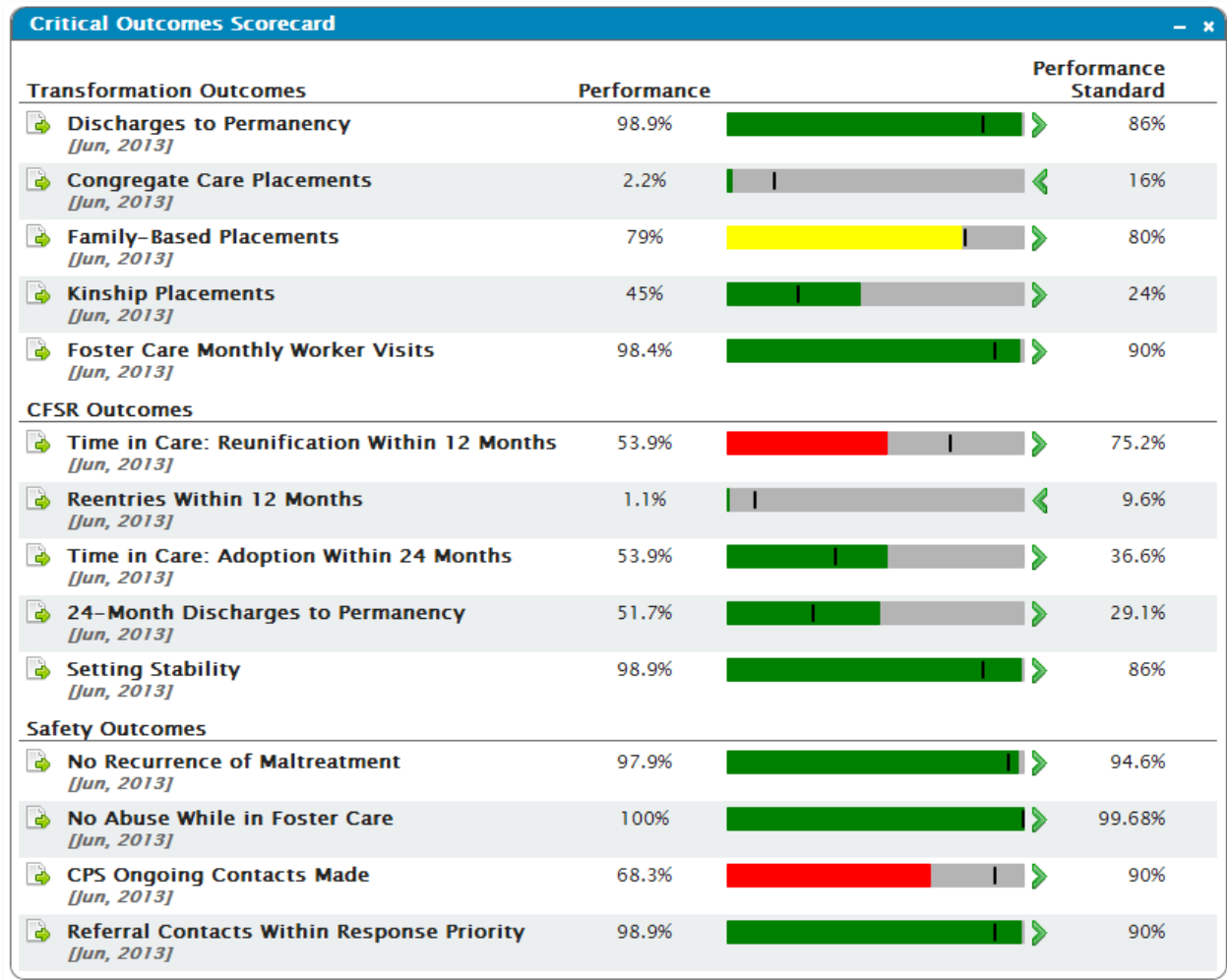## Figure 2: SafeMeasures Report
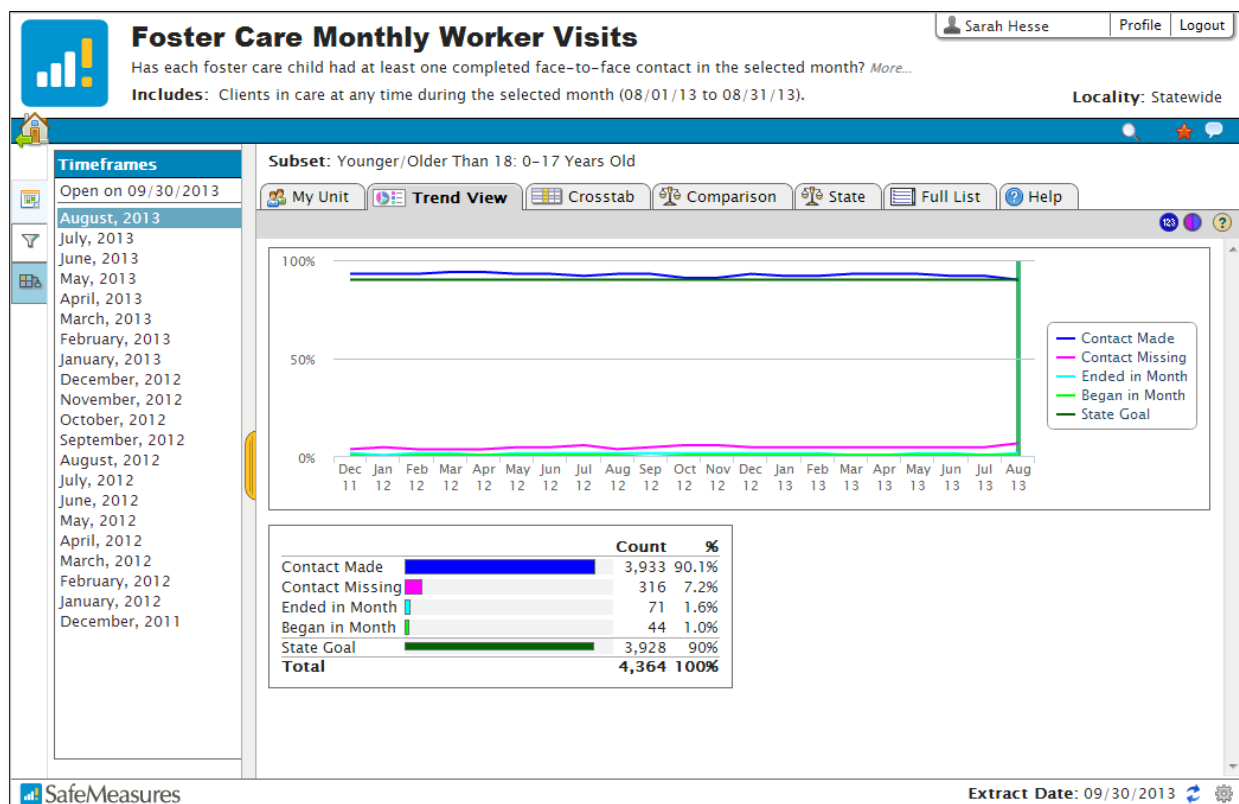
SafeMeasures can also deliver detailed tabular reports. Figure 3 shows a Compliance Summary report used by counties as part of their monthly performance reviews. This report compares the performance of an individual caseload with that of its unit, region, and the county as a whole.

Figure 3: SafeMeasures Summary

Caseload

		County	Region	Unit	Caseload
Permanent Placement: Case Plan Status					
Do open cases have an approved case plan?	Case Plan Status	515	216	46	6
	Total	560	247	49	9
Permanent Placement: Face-to-face Contacts		County	Region	Unit	Caseload
Was the most recent face-to-face contact made with the child within the required timeframe? Voluntary guardianship cases default to a six-month contact schedule.	Face-to-face Contacts	477	201	42	8
	Total	524	229	47	8
Permanent Placement: Face-to-Face Contacts (2F)		County	Region	Unit	Caseload
Was the most recent face-to-face contact made with the child within the required timeframe?	Face-to-Face Contacts	416	206	44	9
	Total	471	239	49	9
Physical Examinations (Interval-Based)		County	Region	Unit	Caseload
Did the child receive his/her most current preventive physical health examination in accordance with the CHDP periodicity schedule?	Current Physical Examination	714	306	84	17
	Total	922	419	114	18
Dental Examinations (Interval-Based)		County	Region	Unit	Caseload
Did the child receive his/her most current annual dental examination? This report opens with a subset to clients over age 3. Remove this subset to see clients under age 3.	Current Dental Examination	472	161	35	7
	Total	654	230	51	9
Permanent Placement: TILP Services		County	Region	Unit	Caseload
How many cases had qualified ILP services delivered during the six-month window ending with the selected month?	ILP Services Delivered	63	27	10	1
	Total	200	101	31	4
Education Enrollment: children age 5-20		County	Region	Unit	Caseload
Has the pertinent information regarding school enrollment and grade detail for children age 5-20 been recorded in CWS/CMS?	Enrollment Status	913	243	87	15
	Total	987	274	91	15

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For quick access to summary performance data, many counties put a scorecard on their SafeMeasures menu (see Figure 4). This scorecard gives an at-a-glance view of county performance on a variety of key performance indicators (KPIs). KPIs are expandable to show trend and other details, and each is linked to standard SafeMeasures reports for filtering and generating lists.

Figure 4: SafeMeasures Scorecard

Critical Outcomes Scorecard		
Transformation Outcomes	**Performance**	**Performance Standard**
Discharges to Permanency [Jun, 2013]	98.9%	86%
Congregate Care Placements [Jun, 2013]	2.2%	16%
Family–Based Placements [Jun, 2013]	79%	80%
Kinship Placements [Jun, 2013]	45%	24%
Foster Care Monthly Worker Visits [Jun, 2013]	98.4%	90%
CFSR Outcomes		
Time in Care: Reunification Within 12 Months [Jun, 2013]	53.9%	75.2%
Reentries Within 12 Months [Jun, 2013]	1.1%	9.6%
Time in Care: Adoption Within 24 Months [Jun, 2013]	53.9%	36.6%
24–Month Discharges to Permanency [Jun, 2013]	51.7%	29.1%
Setting Stability [Jun, 2013]	98.9%	86%
Safety Outcomes		
No Recurrence of Maltreatment [Jun, 2013]	97.9%	94.6%
No Abuse While in Foster Care [Jun, 2013]	100%	99.68%
CPS Ongoing Contacts Made [Jun, 2013]	68.3%	90%
Referral Contacts Within Response Priority [Jun, 2013]	98.9%	90%

The "My Upcoming Work" list appears on the main menu of any worker with a current caseload. It displays the worker's current caseload, along with color-coded indicators for upcoming tasks (see Figure 5).

Users can sort the list by each task to see which cases have an upcoming task due and which tasks are overdue. Detailed information is available by clicking on the case name. A comprehensive report for each individual case, including contact and assignment histories, is also available with a single click.

As with all SafeMeasures reports, the compliance tasks, timelines, and indicators are determined in close collaboration with county staff.

Figure 5: SafeMeasures "My Upcoming Work"

Client Name	Case Type	Next Birthday	PS Contact	CPS Contact	Case Plan	FC Contact
Abuamri, Alexa	CPS Ongoing Services			✓	✓	★
Ahuexoteco, Dakota	Dual: CPS and Foster Care			✓	✓	✓
Alpert, Aracely	Prev.: Low or Mod Risk (after CPS)		✓		❗	⚠
Ameszcua, Akire	Foster Care				❗	❗
Ante, Arely	Early Prev./Family Sup: No Court Order		✓		⚠	⚠
Appiah, Christiana	CPS Ongoing Services	🟥		✓	✓	✓
Aquilera, Ajalon	CPS Ongoing Services			✓	⚠	⚠
Aquilina, Atua	Foster Care	🎂			✓	✓
Armendariz, Corie	Early Prev./Family Sup: Court Order		★		⚠	❗
Armentrout, Corine	CPS Ongoing Services			✓	✓	✓
Asariegos, Danelle	CPS Ongoing Services			✓	✓	✓
Asfall, Abiqail	Early Prev./Family Sup: Court Order		✓		✓	✓
Bacame, Cotton	Early Prev./Family Sup: No Court Order	🟥	✓		⚠	⚠
Ballard, Antonette	CPS Ongoing Services			✓	❗	⚠
Bayona, Banesia	Early Prev./Family Preservation		✓		❗	⚠

Note: These are not actual case names.

Find Out More About SafeMeasures
(800) 306-6223
safemeasures@nccdglobal.org
http://nccdglobal.org

Wesley Mission, New South Wales, Australia (8/13)
Platform: Design
Status: Implemented in PowerBuilder by Agency
Description: NCCD assisted Wesley Mission in the integration of the SDM system into its existing PowerBuilder-based case management system. NCCD reviewed specifications and design documents and consulted on best practices for integrating the SDM assessments. NCCD also performed acceptance testing of the final application.

Brighter Futures, New South Wales, Australia (5/13 – Present)
Platform: ASP.NET (DCS)
Status: Hosted and maintained by NCCD
Description: Built on NCCD's DCS framework, the Brighter Futures SDM application supports the completion of the SDM safety assessment, risk assessment, risk reassessment, and child and family strengths and needs assessments. The application is implemented as a stand-alone, Internet-based application that is hosted by NCCD. All data resides in NCCD's data warehouse.

Florida Department of Children and Families (12/13)
Platform: Design
Status: Implemented by Agency
Description: NCCD assisted the Florida Department of Children and Families in the integration of SDM risk assessment into its existing case management system. NCCD reviewed specifications and design documents and consulted on best practices for integrating the SDM assessments. NCCD also performed acceptance testing of the final application.

California Care Facilities Map (2012 – Present)
Platform: ASP.NET MVC, ESRI ArcGIS
Status: Hosted and maintained by NCCD
Description: The care facilities mapping application for the California Department of Social Services (CDSS) Licensing Bureau leverages the SafeMeasures mapping platform to display the location of licensed child and adult care facilities, foster homes, and elder care facilities on an interactive, Internet-based map. It also displays the locations of private and public schools. Near real-time information about the location of wildfires, tornados, earthquakes, and severe weather alerts is superimposed over these locations. Users may search by address, view details about specific facilities, and/or generate lists of facilities within an area or within a selected distance of a point on the map. CDSS staffs use this information to assist in licensing, planning and emergency management.

OurKids of Miami-Dade Florida (7/11 – Present)

Platform: ASP.NET (DCS)

Status: Hosted and maintained by NCCD

Description: Built on NCCD's DCS framework, the OurKids SDM application supports the completion of the SDM risk assessment, risk reassessment, child and caregiver strengths and needs assessments, and reunification assessment. The application is implemented as a stand-alone, Internet-based application that is hosted by NCCD. All data resides in NCCD's data warehouse.

State of Minnesota APS (4/10 – Present)

Platform: ASP.NET (DCS)

Status: Hosted and maintained by NCCD

Description: Built on NCCD's DCS framework, the Minnesota APS SDM application supports the completion of the SDM screening, safety, and strengths and needs assessments for all County APS agencies across the state. The application is implemented as a stand-alone, Internet-based application that is hosted by NCCD. All data resides in NCCD's data warehouse.

State of New Hampshire APS (8/08 – Present)

Platform: ASP.NET (DCS)

Status: Hosted and maintained by NCCD

Description: Using the DCS framework, NCCD has created a number of data collection tools and assessments to support the development and validation of multiple versions of the SDM APS risk assessment for the State APS agency. The application is implemented as a stand-alone, Internet-based application that is hosted by NCCD. All data resides in NCCD's data warehouse.

California SCP (1/08 – Present)

Platform: ASP.NET (DCS)

Status: Hosted and maintained by NCCD

Description: Built on NCCD's DCS framework, the California Substitute Care Provider (SCP) application supports the completion of the SDM SCP support, willingness, and placement assessments. The application is implemented as a stand-alone, Internet-based application that is hosted by NCCD. All data resides in NCCD's data warehouse.

District of Columbia (10/07 – 2/09)

Platform: Design

Status: Implemented by Deloitte in ASP.NET

Description: NCCD assisted Deloitte and District staff in the integration of the SDM system into its existing ASP.NET-based SACWIS system. NCCD developed a detailed requirements document and consulted on screen design and specifications. NCCD also assisted in the development of a testing plan and in the testing of the final application.

As a fully embedded system, this version of the SDM system is tightly integrated with the case planning process. The SDM strengths and needs assessments are required elements on each case plan and define an initial set of issues that must be addressed.

Louisiana (6/07 – Present)
Platform: ASP.NET (DCS)
Status: Hosted and maintained by NCCD
Description: Built on NCCD's DCS framework, the Louisiana SDM application supports the completion of the SDM risk assessment, risk reassessment, strengths and needs assessments, and reunification assessment throughout Louisiana. The application is implemented as a stand-alone, Internet-based application that is hosted by NCCD. All data resides in NCCD's data warehouse.

Users are able to access specific assessments from the Louisiana SACWIS system via an encrypted link. Pressing a button in the SACWIS system sends encrypted data to the NCCD servers, which is decrypted and used to open an assessment and pre-populate various data elements (ID, name, etc.). No additional login is needed. When an assessment is saved, the resulting scored data is automatically posted back to a web service on the Louisiana network that NCCD and Louisiana staff created to integrate assessment data into the SACWIS system in real time.

Multi-Jurisdiction TANF (1/07 – Present)
Platform: ASP.NET (DCS)
Status: Hosted and maintained by NCCD
Description: Built on NCCD's DCS framework, the Multi-Jurisdiction TANF system supports the completion of the SDM risk assessment, risk reassessment, and strengths and needs assessment for families receiving TANF services. The application is implemented as a stand-alone, Internet-based application that is hosted by NCCD. All data resides in NCCD's data warehouse. An automated export system sends data back to jurisdictions on a weekly basis.

Riverside APS (10/06 – Present)
Platform: ASP.NET (DCS)
Status: Hosted and maintained by NCCD
Description: Built on NCCD's DCS framework, the Riverside Adult Protective Services (APS) system hosts the SDM screening tool and safety assessment for the county APS agency. The application is implemented as a stand-alone, Internet-based application that is hosted by NCCD. All data resides in NCCD's data warehouse. An automated export system sends data back to the county on a weekly basis.

Connecticut (5/06 – 5/07)

Platform: Design
Status: Implemented in PowerBuilder by Agency
Description: NCCD assisted Connecticut in the integration of SDM into its existing PowerBuilder-based SACWIS system. NCCD developed a requirements document and detailed specifications for the assessments. NCCD also assisted in the development of a testing plan and in the testing of the final application.

California Version 3 (2/06 – Present)

Platform: ASP.NET
Status: Hosted and maintained by NCCD
Description: The third California SDM application represents a technology upgrade, as well as the addition of new assessments and several new features.

Reassessment households have been modified to provide placeholders for the various assessments for each household type. These placeholders are added to the assessment list when the household is created. The user simply has to click on one to create a new assessment. Color-coding informs the user whether the assessment is required or not.

Supervisor approval has been changed to allow users to request approval, instead having the request automatically generated on save. Users may choose which unit supervisor to send the approval request to, and supervisors may transfer an approval request to another unit.

This version also exposes a web service that will return a complete history of SDM assessments for any specified referral or case identifier. Los Angeles County is using this functionality to support an application in its police department.

Structurally, the database has been redesigned to better support assessment versioning. Assessment data is stored in an attribute-value configuration, which allows assessment changes without corresponding changes to the data model. NCCD also created an export utility to translate this attribute-value data into a format better suited for analysis. Several counties receive weekly data extracts from this automated system.

To increase security, all data access functions are split off into a separate application and run on separate servers from the user interface code. This separation allows confidential data to be sequestered behind an additional firewall and removes the need for direct data access from the web servers.

Virginia (1/04 – Present)

Platform: J2EE/WebSphere

Status: Hosted and maintained by agency

Description: The Virginia SDM application is an Internet-based application hosted by the agency on agency servers. Data is stored alongside their SACWIS data in an Oracle database.

When originally developed, the Virginia SACWIS system was a PowerBuilder-based executable. To enable a link to a web-based SDM application, the application was implemented as an HTML application with a stub file installed on each client workstation. Subsequent versions of the SACWIS system are web-based and use traditional HTML links to communicate with the SDM application.

Specific SDM assessments are launched from buttons within the SACWIS system, passing user and case/referral information. The SDM application then uses this information to query SDM and SACWIS data. Users may also open an assessment list for a specific case or referral.

New Jersey (7/03 – 8/07)

Platform: ASP Classic/VB Components

Status: Assessments Integrated into SACWIS

Description: The New Jersey SDM application was an Internet-based application hosted by the agency on agency servers. Data was stored alongside their case management data in an Oracle database.

This application was built to work with New Jersey's pre-SACWIS case management system. Users accessed the SDM application from a list of assigned cases and referrals within this case management system. Pressing the SDM button on this list passed user and case or referral identifiers to the SDM application, which displayed the assessment list for that referral or case. From here, users could add, edit, delete, and print assessments.

New Jersey's case management system could not support supervisor approval, so NCCD implemented a supervisor lock/unlock function in the SDM system as a proxy. Any user identified by the case management system as a supervisor could lock an assessment, making it non-editable. Similarly, a supervisor could unlock a previously locked assessment when changes needed to be made.

California Version 2 (8/02 – 8/06)
Platform:　　　ASP Classic/VB Components
Status:　　　　Replaced by new version
Description:　　The second California SDM application was the first to be Internet-based. Because California SDM was required to be a stand-alone application, it made sense to host the application and maintain the extracted SACWIS data at NCCD's offices. This removed the need to remotely update thousands of installations across California, as well as maintain separate a data feed for each county.

　　　　　　　　This SDM application translated many of the functions and methods for assessment completion developed in prior applications to Internet-based technologies. In particular, this version gave users a list of current assignments from which to select referrals and cases. While the search tools were retained, this functionality gave users quicker access to their caseloads.

　　　　　　　　Because the California SDM application stands completely apart from the SACWIS system, this version included its own supervisor approval functionality. Supervisor approval was automatically requested when an assessment was completed. Supervisors could then view a list of waiting approval requests and approve or return the assessments.

　　　　　　　　This version also gave supervisors the ability to view the caseloads of any of their workers. They could then access the assessment list of any case or referral on one of those caseloads and interact with the listed assessments. This version also defined a "manager" level of user who had access to any county worker's caseload.

New Hampshire (3/01 – 9/04)
Platform:　　　VB Client/Server
Status:　　　　Maintenance turned over to agency
Description:　　The New Hampshire SDM application is a standalone two-tier executable installed on each workstation alongside the PowerBuilder-based SACWIS client. Data is stored in an Oracle database alongside SACWIS data.

　　　　　　　　SDM assessments are launched from buttons within the SACWIS system, passing user and case/referral information on the command line. The SDM application then uses this information to query SDM and SACWIS data.

　　　　　　　　New Hampshire's SDM application is the first to integrate with the SACWIS supervisor approval system. Users could request approval after completing an assessment, and supervisors could open and approve an assessment

from the SACWIS system. The SDM assessments would also show up on the supervisor's "Assessments Requiring Approval" list in the SACWIS system.

Cuyahoga County, Ohio (1/00 – 12/03)

Platform: VB Client/Server
Status: Maintenance turned over to agency
Description: The SDM application built for Cuyahoga is a standalone two-tier executable. This application is installed on each workstation alongside the PowerBuilder-based SACWIS client. Data is stored in an Oracle database alongside SACWIS data.

Users access SDM assessments using buttons located on SACWIS application screens. Pressing a button opens a specific SDM assessment and passes in the appropriate user information and case or referral identifier. The SDM application then uses this passed-in information to query the SACWIS data. This allows users to access individual assessments from within the SACWS system or open the SDM assessment list to get a complete list of assessments for a case or referral.

Cuyahoga is the first SDM application to define "reassessment episodes" that can organize case-based assessments into packets and link them to a common point in time. These episodes also specify different collections of assessments for different episode types. This helps the worker determine which assessments are required at each point in the reassessment cycle.

Minnesota Consortium (7/99 – 12/02)

Platform: VB Client/Server
Status: Assessments Integrated into SACWIS
Description: Built as a set of N-tier executables, this application separated data access and assessment item definition from the assessment forms and scoring logic. A client executable was installed on each workstation alongside the SACWIS client. A central "business logic" component was installed on a network server. This middle-tier component handled all data access, as well as providing the client with assessment item text, score values, and definitions. Data was stored in a regional Oracle database alongside SACWIS data.

Users logged in to the SDM system separately using their SACWIS user accounts. Once logged in, they were able to view their currently assigned referrals and cases. Once a user had selected a referral or case, he/she could complete the appropriate SDM assessments.

California Version 1 (10/98 – 3/03)

Platform: VB Client/Server

Status: Replaced by new version

Description: Built as a standalone executable, this application was installed on each workstation alongside the SACWIS client. Users logged in to the SDM system separately from the SACWIS application and used search tools to locate referrals and cases. Once identified, users could then complete the appropriate SDM assessments for those referrals and cases. The associated SACWIS identifiers were included on the assessment record to link it back to the SACIWS case or referral.

SDM assessments are family-based. However, the California SACWIS is a child-based system and has no entity to represent a family. The SDM application included its own family entities that joined clients into a family for assessment purposes. Families were identified by the client ID of the primary caregiver.

Each county maintained their own SDM database, so the application was able to work with multiple database platforms, including Oracle, SQL Server, and Access. SACWIS data was supplied to the application by way of regular exports that were downloaded from a NCCD website and imported into the application by local staff. SDM and local copies of SACWIS data were stored separately to facilitate this process.
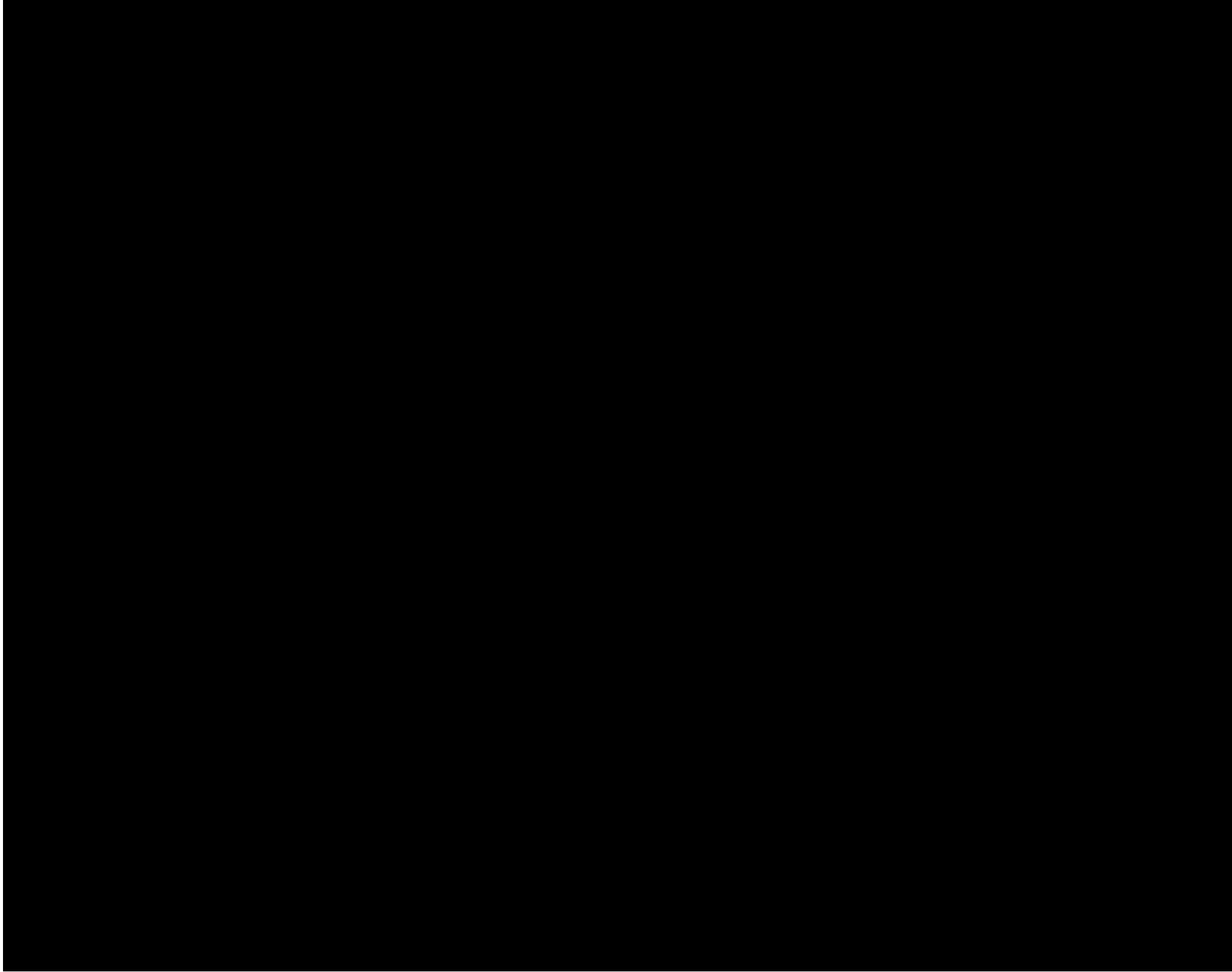
CPS Tools

APS Tools

Appendix B

Staff Resumes

KATHERINE H. PARK
426 S. Yellowstone Dr., Ste. 250
Madison, WI 53719
(800) 306-6223
kpark@nccdglobal.org

PROFESSIONAL EXPERIENCE

NATIONAL COUNCIL ON CRIME AND DELINQUENCY
Vice President
7/2011 – Present

NATIONAL COUNCIL ON CRIME AND DELINQUENCY'S CHILDREN'S RESEARCH CENTER
Assistant Director, CRC
7/2005–6/2011
- Oversaw the development of the Structured Decision Making® (SDM) model.
- Develop innovative uses for the SDM® approach in other social service fields including adult protection, placement/foster care support, and economic assistance programs.
- Promote research-based approaches to decision making in social services and policy development.
- Provide consultation and technical assistance to social service agencies in the implementation of SDM assessment systems.

Senior Researcher
7/2003–7/2005
- Designed, trained, and provided technical assistance to states and local jurisdictions in the implementation of SDM systems.
- Monitored project work plans and developed budgets.
- Assisted with new contract development and proposals.
- Participated in new SDM product development such as the foster caregiver assessment model.

Senior Research Associate
9/2000–7/2003
- Coordinated the design, training and implementation of the child protective services (CPS) and juvenile justice assessment systems in various state and county jurisdictions.
- Monitored SDM site work plans.
- Prepared status reports on project activities.
- Conducted SDM development and designed workgroups.
- Developed training curricula.

- Conducted program training.

PATHWAYS TRANSITION PROGRAMS, INC., ATLANTA, GEORGIA
Administrative Director
2/2000–9/2000
- Developed and provided administrative oversight of programs for at-risk youth and their families related to maternal substance abuse, child maltreatment, and delinquency.
- Managed state contracts for intensive home-based counseling services and state CPS training.
- Presented workshops on model programs at various state-sponsored conferences.
- Secured funding for program development, implementation, and evaluation.
- Marketing.

STATE OF GEORGIA DEPARTMENT OF HUMAN RESOURCES, DIVISION OF FAMILY AND CHILDREN SERVICES, ATLANTA, GEORGIA
Policy Consultant
1997–2000
- Developed policy, practice standards, and training curriculum in CPS.
- Managed the family preservation programs and budgets, in excess of $11 million annually.
- Conducted statewide training of county DFCS staff in the areas of CPS policy and best practice standards.

INTERACTIVE BUSINESS SYSTEMS, ATLANTA, GEORGIA
Information Systems Recruiter
5/1997–9/1997
- Recruited individuals experienced in various areas of client-server and mainframe technologies for contract positions with Fortune 500 companies.
- Managed all points of the placement process including technical skills assessment, relocation assistance, and mediation between contract consultants and clients. Major clients included Coca-Cola, The Home Depot, The Weather Channel, and HomeBanc Financial Services.

GWINNETT COUNTY DEPARTMENT OF FAMILY AND CHILDREN SERVICES, LAWRENCEVILLE, GEORGIA
Social Services Supervisor
1996–1997
- Provided supervision, training, and support in the area of CPS to a team of six case managers.

- Improved the efficacy and efficiency of service delivery through the development of performance initiatives and application of management and leadership principles.
- Assessed individual and team performance objectives as defined by state and local policy and practice standards.

Child Protective Services Investigator
1995–1996
- Conducted investigations on reports of child maltreatment.
- Developed expertise in the identification and assessment of child abuse and neglect.
- Coordinated services with various community partners including law enforcement and family advocacy agencies.

Social Services Case Manager, Family Preservation Unit
1994–1995
- Provided case management to families with children identified as being at risk of abuse or neglect.
- Assessed the continued safety and protection of maltreated children.
- Mobilized community resources and services to stabilize family crisis and strengthen family stability.

Economic Support Services Case Manager
1992–1994
- Provided case management activities to determine client eligibility for public assistance benefits
- Assisted clients in accessing necessary community services related to housing, employment, child support, and mental health.

PROJECTS MANAGED

VERMONT SOCIAL AND REHABILITATIVE SERVICES
2002–2004
The State of Vermont contracted with CRC to design and implement a case management decision system. Components included structured assessment tools to assist workers in making more reliable and valid decisions related to child abuse/neglect report screening, response priority, safety, risk classification, level of care, foster caregiver difficulty of care, reunification, and case closure. All tools and related policies and procedures were developed in CRC-facilitated workgroups.

MISSOURI DIVISION OF FAMILY SERVICES
2002–2003
The State of Missouri contracted with CRC to design and implement a case management decision system. Components included structured assessment tools to assist workers in making more reliable and valid decisions related to child abuse/neglect report screening,

response priority, safety, risk classification, and case closure. All tools and related policies and procedures were developed in CRC-facilitated workgroups and were field tested. Training curriculum was developed and provided to state training staff.

TENNESSEE DEPARTMENT OF CHILDREN'S SERVICES
2008
CRC is providing technical assistance, data collection, and analysis services for the Tennessee Department of Children's Services for the design and implementation of an intake assessment. The assessment is a structured tool that supports workers in making screening, track assignment, and response priority decisions. CRC will be collecting data and providing summary reporting related to the screening and track assignment components of the tool.

NEW HAMPSHIRE DIVISION FOR CHILDREN, YOUTH & FAMILIES
1999–2003
The State of New Hampshire contracted with CRC to design and implement a case management system decision support system. Components included tools to assist workers in making decisions for response priority, safety, risk classification, reunification, and case closure. CRC led workgroups that developed all of the tools, developed a curriculum, and provided training to staff.

CRC information technology staff designed and developed a management information module that was integrated with the existing application and database. This system will be used to record assessment data. The county has contracted with CRC to monitor implementation and analyze these data to generate quarterly reports describing agency operations.

NEW HAMPSHIRE DEPARTMENT OF HEALTH AND HUMAN SERVICES, BUREAU OF ELDERLY AND ADULT SERVICES, SDM® SYSTEM IN ADULT PROTECTIVE SERVICES (APS)
2007–2010
CRC assisted New Hampshire in developing and implementing the following components of the SDM system for APS: screening criteria, response priority, safety, and strengths and needs. A risk assessment data collection instrument was also developed.

MINNESOTA ADULT PROTECTION COUNTY COLLABORATIVE
2009 – Present
The Minnesota Adult Protection County Collaborative formed in late 2009 as an organization of counties working towards greater consistency in adult protection services APS. Participating agencies, in conjunction with NCCD, are developing a case management system designed to increase the consistency and accuracy of key decisions made by APS workers. Assessments to be developed include an intake assessment to help determine how quickly to initiate a face-to-face investigation, a safety assessment to help determine whether immediate action is needed at the first face-to-face contact, and a strengths and needs assessment to help identify what priority needs should be addressed with services. Participants include Dakota County Social Services; Hennepin County Human Services and

Public Health Department, Adult Protection Services; Olmsted County Social Services; Ramsey County Community Human Services Department; Steele County Human Services; and Washington County Community Social Services, Adult Family Services Unit.

DEPARTMENT OF COMMUNITIES IN QUEENSLAND, AUSTRALIA
2004 – Present
The Department of Communities in Queensland, Australia, was required to completely restructure its CPS system as a result of a Crime and Misconduct Commission study. A major component of the restructuring was to include valid and reliable assessments to guide decision making in child protection. An independent review of various systems resulted in selection of the SDM model. At the same time, key practice principles were revised toward more family-focused, community-based approaches. CRC worked with Queensland to customize a complete SDM model, integrate the model in the new practice framework, develop a training curriculum, and provide training for pilot sites and training for trainers. Equity issues were very important in Queensland, and CRC worked with department staff to ensure that Aboriginal and Torres Strait Islander voices were included in the customization process. The SDM model is now used throughout Queensland. CRC will be conducting further data analysis and management information reporting to the Department to assess ongoing implementation. CRC continues to provide TA to Queensland DCS, and will also produce quarterly data reports through June 2012.

SAN LUIS OBISPO (SLO) AND ORANGE COUNTY, CA, SDM® SYSTEM FOR PREVENTION SERVICES IN TANF (TEMPORARY ASSISTANCE FOR NEEDY FAMILIES)
2005 – Present
CRC is providing data collection, management reports, technical assistance, and process evaluation services for the CalWORKs risk assessment tool for clients at high risk of entering into the CWS/CFS/SSA in Orange and SLO Counties. The CalWORKs risk assessment tool is a modified version of the CPS SDM risk assessment and is used to screen applicants for economic assistance. Those determined to be at higher risk for child maltreatment are offered preventive services.

RIVERSIDE COUNTY, CA SDM® SYSTEM FOR WTW
2009 – Present
Through a grant from the Riverside County Department of Mental Health (RCDPMH), CRC is conducting a joint research project between the RCDPMH and the Riverside County Department of Public Social Services to develop an assessment model that will improve early identification of CalWORKs clients at high risk of Welfare-to-Work participation non-compliance due to client barriers to employment; and provide a structured assessment process to improve the development of coordinated service plans. Activities included in this research project are as follows: 1) Conduct research to determine the feasibility of developing an objective actuarial assessment procedure for estimating risk of non-compliance with WTW program participation among CalWORKs recipients in Riverside County, California. The initial research study will result in either a preliminary risk assessment or a data collection instrument to be implemented by workers for subsequent analysis (Year 1); Develop a family

strengths and needs assessment to assess high and very high risk WTW clients, which will help target services toward identified barriers to self-sufficiency and support successful WTW participation (Year 1); 3) Design and build a web-based data collection system for completion of SDM assessments (Year 1); 4) Conduct training on use of the preliminary risk assessment (or data collection instrument) and the family strengths and needs assessment (Year 2); 5) Conduct a process evaluation and provide general technical assistance and support during initial implementation (Year 2); and 6) Conduct a prospective validation study of the preliminary risk assessment or analyze data from the data collection instrument to construct a risk assessment, and provide general technical assistance and support (Year 3-3.5).

SAN DIEGO COUNTY, CA, AGING AND INDEPENDENCE SERVICES, SDM® INTAKE ASSESSMENT PROJECT
2010–2011
NCCD is currently working with San Diego County to develop an intake assessment for APS to determine which reports of adult maltreatment require an investigation response, and, if so, how quickly that response should be initiated. Activities include assessment development, training of San Diego intake workers, and technical assistance during the implementation period.

CALIFORNIA SDM® PLACEMENT SUPPORT MODEL PROJECT
2007 – Present
Currently, CRC is providing technical assistance and training to CA county child welfare agencies participating in implementation of the SDM placement support assessment model. This model is comprised of three assessments that support worker decision making related to the degree of support foster and relative care providers require to reduce the likelihood of placement disruption due to inadequate caregiving.

NIJ DEVELOPING AN ACTUARIAL RISK ASSESSMENT FOR ADULT PROTECTIVE SERVICES
2008–2012
Through NIJ Grant # 2008-IJ-CS-0025. NCCD and the New Hampshire Bureau of Elderly Services are developing an actuarial risk assessment to be completed by APS workers to estimate the likelihood that an elderly or vulnerable adult will become a victim of abuse or neglect. APS workers can use this information when deciding what level of services to provide to a client. Phase I of the study, currently in progress, involves conducting a prospective study to construct a risk assessment that estimates the likelihood of future adult maltreatment in non-residential settings. The critical characteristics of all non-institutional investigations were observed by APS workers during the first nine months of the research project, and recidivism was observed for a standardized six-month follow-up period. The risk assessment was constructed using actuarial research methods and is currently being reviewed with BEAS staff. BEAS plans to implement the risk assessment in July 2010. Phase II of the project consists of a process evaluation to examine the fidelity with which workers use the risk assessment when making case decisions. Phase III involves a second, prospective validation study to ensure that, when implemented under field conditions, the actuarial risk assessment accurately classifies clients by the likelihood of future mistreatment.

PROFESSIONAL ACTIVITIES

2010 – Present	Member of the National Center on the Prevention of Elder Abuse (NCPEA)
2008 – Present	Member of the National Adult Protective Services Association (NAPSA); member of the NAPSA-NCPEA Research Committee
2001–2002	Board member, Wisconsin Professional Society on the Abuse of Children (WIPSAC)
1997–2000	Division Media Representative and Liaison with the *Atlanta Journal-Constitution* during the investigation and research on child fatalities in Georgia; Division Coordinator of the Child Fatality Research Study with Emory University; Lead Consultant for the Division's substance abuse policy initiative; member of the Georgia SDM core development team.
1995–1997	Gwinnett County Juvenile Court Liaison
1995–1996	Chairperson of the Gwinnett County Social Services Quality Task Force
1992–1994	Member of the Gwinnett County DFCS Leadership Committee; G.I.F.T. Center Services Liaison (Alternative School Program)

AWARDS

2011	Recipient of the Rosalie S. Wolf Memorial Award from the National Adult Protective Services Association

EDUCATION

UNIVERSITY OF PHOENIX
M.A., organizational management, 2006

UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN
B.A., psychology, 1991

JESSE RUSSELL
426 S. Yellowstone Dr., Ste. 250
Madison, WI 53719
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jrussell@nccdglobal.org

EDUCATION

University of California, Santa Barbara
PhD in Political Science with emphasis in economy policy and research methods
- Awarded Graduate Opportunity Fellowship and Regents Awards

University of California Santa Barbara
MA; thesis on comparative financial systems.

Dartmouth College
BA

PROFESSIONAL EXPERIENCE

DIRECTOR OF RESEARCH
2013 – Present
National Council on Crime and Delinquency, Madison, Wisconsin
- As research and evaluation manager, lead broad array of research and performance evaluation efforts. Articulate vision, express passion, and inspire people to act.
- Develop programs, research initiatives, and budgets. Coordinate performance measurement, evaluation plans, and assessment strategies. Work with organization leadership and all staff to develop program goals commensurate with the organization's mission.
- Collaborate with national organizations and partners on research and evaluation projects. Create research tools and data collection instruments.
- Develop analytics and research projects funded by the Annie E. Casey Foundation, the Walton Family Foundation, the state of Georgia, and the state of Wisconsin, among others.
- Actively lead research design, proposal writing, and research project execution. Develop cost estimates, budgets, timelines, and work plans.

RESEARCH MANAGER
2009–2012
National Council of Juvenile and Family Court Judges, Reno, Nevada
- In 2011, successfully guided team to produce six papers published in peer-reviewed journals, 11 research reports, and seven research "snapshots."
- Principal investigator for a randomized controlled trial study of an intervention focused on implicit bias and children of color in child welfare. Study findings covered by more than 100 news outlets.
- Consistently completed projects under budget. Presented research to diverse audiences at multiple national conferences each year.
- Served as principal investigator for a US Department of Health and Human Services grant to improve well-being and educational stability for youth in foster care through increased data sharing, coordination, and evaluation capacity.

ADJUNCT FACULTY
2010–2012
Truckee Meadows Community College, Reno, Nevada
- Taught political science; provided mentorship; engaged diverse college environment, including students, faculty, and staff of varying social, economic, cultural, ideological, and ethnic backgrounds.

ASSISTANT PROFESSOR
2006–2009
Seton Hall University, South Orange Village, New Jersey
John C. Whitehead School of Diplomacy and International Relations
- Established methodology section of curriculum, which became a model for other units on campus. Led efforts on development and feasibility analysis of new master's program for mid-career professionals.
- Awarded junior professor research grant for work on economic decision making. Published research on comparative economic systems in peer-reviewed journals, including *Review of International Studies* and *Empirical Economics*.

INSTRUCTOR, RESEARCH ASSISTANT
2002–2005
University of California, Santa Barbara
- Taught political economy and political science courses.

FINANCIAL ANALYST
1996–1997; 1999–2002
Investor reporting, general ledger, financial reporting.
- Prepared financial reports on asset-backed securities.

ADVANCED TRAINING

- Supervisory Skills 101, Nevada Association of Employers
- Advanced Analytics, Chapin Hall and Annie E. Casey Foundation
- Protection of Human Research Subjects, Collaborative Institutional Training Initiative
- Inter-university Consortium for Political and Social Research summer program, University of Michigan.
- Foreign Policy Decision Making Winter Institute, Texas A&M University.
- Empirical Implications of Theoretical Models summer institute, Washington University in St. Louis.
- Public Choice Society Outreach Conference, George Mason University.

PEER-REVIEWED PUBLICATIONS

2014	"The Effects of Judicial Personnel on Hearing and Outcome Timeliness in Juvenile Dependency Cases," *Family Court Review*.
2014	"Judicial Issues in Child Maltreatment," *The Handbook of Child Maltreatment.*
2013	"Effective Judging Within the Child Welfare System: The Correlates of Judicial Leadership," *Judicature.*
2013	"Reflective Decision-Making and Foster Care Placements," *Psychology, Public Policy, and Law.*
2013	"An Overview of the Courts Catalyzing Change Preliminary Protective Hearing Benchcard Study," *Juvenile and Family Court Journal*.
2013	"A New Method of Assessing Judicial Workload in Juvenile Dependency Cases," *Juvenile and Family Court Journal*.
2012	"An Evaluation of the Effectiveness of the Parent-to-Parent Program in Changing Attitudes and Increasing Parental Engagement in the Juvenile Dependency System,*" Children and Youth Services Review*.

2012	"Ethical Crises in the International Political Economy," *Journal of Socio-Economics*.
2012	"Disequilibrium in the International Balance of Payments," *Journal des Economistes et des Etudes Humaines*.
2012	"Herding and the Shifting Determinants of Exchange Rate Regime Choice," *Applied Economics*.
2011	"Racial Disproportionality in Child Welfare: False Logic and Dangerous Misunderstandings," *Judicature*.
2011	"Assessing Efficiency and Workload Implications of the King County Mediation Pilot," *Journal of Juvenile Justice*.
2011	"Effects of Parental and Attorney Involvement on Reunification in Juvenile Dependency Cases," *Children and Youth Services Review*.
2011	"Trading Sovereignty for Stability? The Political Economy of Monetary Integration," *Review of International Studies*.
2011	"Hidden Patterns in Exchange Rate Regime Choice," *Empirical Economics*.
2010	Book review, "Statistical Modeling for Social Researchers: Principles and Practice," *International Journal of Social Research Methodology*.
2009	"Chaos and Order in Exchange Rates," *International Journal of Monetary Economics and Finance*.
2008	"Democracy and Exchange Rate Regime Choice," *International Journal of Trade and Global Markets*.

EVALUATION REPORTS

2012	"Disproportionality Rates for Children of Color in Foster Care," National Council of Juvenile and Family Court Judges.
2012	"Courts Catalyzing Change Preliminary Protective Hearing Benchcard: Honolulu Baseline Assessment," National Council of Juvenile and Family Court Judges.

2012   "Oregon State Disproportionality Profiles," National Council of Juvenile
              and Family Court Judges.

2011   "Assessing the Relationship Between Efficiency and Effectiveness in
              Juvenile Dependency Cases," National Council of Juvenile and Family
              Court Judges.

2011   "Right From the Start: The Courts Catalyzing Change Preliminary
              Protective Hearing Benchcard Study Report—Testing a Tool for Judicial
              Decision-Making," National Council of Juvenile and Family Court
              Judges, Casey Family Programs, Office of Juvenile Justice and
              Delinquency Prevention.

2011   "Technical Assistance Brief: The NIS-4—What It All Means (and doesn't
              mean)," National Council of Juvenile and Family Court Judges, Office of
              Juvenile Justice and Delinquency Prevention.

2011   "Parent to Parent Outcome Evaluation," National Council of Juvenile
              and Family Court Judges, Washington State Administrative Offices of
              the Courts.

2011   "Evaluation of the Parent to Parent Program, King County, Washington,"
              National Council of Juvenile and Family Court Judges, Washington State
              Administrative Offices of the Courts.

2011   "King County Mediation Program Assessment, Phase II," National
              Council of Juvenile and Family Court Judges, Washington State
              Administrative Offices of the Courts.

2010   "King County Mediation Program Assessment, Phase I," National Council
              of Juvenile and Family Court Judges, Washington State Administrative
              Offices of the Courts.

TIMOTHY J. CONNELL
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EDUCATION

University of Wisconsin–Madison, 1993
PhD in educational psychology. Areas of study: human learning, use of computers in education, statistics, and research design

University of Wisconsin-Madison, 1990
MS in education psychology

University of Rochester, Rochester, New York, 1987
BA in psychology

PROFESSIONAL EXPERIENCE

DIRECTOR OF APPLICATION DEVELOPMENT
2013 – Present
National Council on Crime and Delinquency (NCCD), Madison, Wisconsin
- Leads multiple teams of data analysts and software developers to create applications that add value to data. Designs and develops software-based systems that translate data into actionable information for use by staff at all levels of an agency. Oversees marketing, sales, and client relations for SafeMeasures® and application development projects. Provides overall project management for all aspects of software development and maintenance processes.

INDEPENDENT SOFTWARE DEVELOPER
1998–2013
- Independent solution developer specializing in high-performance, secure websites that collect and organize data from diverse and challenging data sources. Designed and developed a flexible and secure web-based quality improvement and decision-support system used by more than 30,000 social workers in five states. Created a web-based disaster map that shows social workers the location of children in foster care in relation to current and recent natural disasters, such as wild fires, earthquakes, and tornados.

Designed and managed the development of a secure web-based application and development framework that allows the rapid development and deployment of complex assessments.

DIRECTOR OF PRODUCT DEVELOPMENT
1995–1998
Expct Computer Consulting and Training, Madison, Wisconsin
- Created a product development division with a focus on the development of multimedia, interactive software and databases. Responsible for administering all aspects of product development, including supervising team members, determining budgets and project timelines, and long-term planning. Provided creative leadership on project teams, developed content and multimedia treatments, and specified functionality.

FREELANCE VIDEO PRODUCER
1994–1995
- Developed a videotape series to accompany an established textbook on educational psychology. Wrote scripts and developed graphical concepts that communicated complex and abstract ideas in clear and understandable ways. Supervised and coordinated all aspects of video production, including budgeting, scheduling, design, and editing.

PROJECT DIRECTOR
1993–1995
Center on Education and Work, University of Wisconsin–Madison
- Designed and implemented evaluations for two statewide education programs. Created tools and processes to assist local program improvement. Conducted longitudinal research on the efficacy of programs for inner-city youth. Wrote successful grant proposals. Wrote articles for national journals and made presentations at state and national conferences.

LECTURER
1991–1993
University of Wisconsin–Madison, University of Wisconsin–La Crosse
- Courses taught:
Educational psychology of the gifted and talented (spring of 1993);
Issues in school restructuring (fall of 1992); and
Educating able learners (summer of 1991).

RESEARCH ASSISTANT
1991–1992
University of Wisconsin–Madison

- Developed enrichment programs for elementary and middle school students, focusing on the design of computer-based multimedia presentations. Worked with team to design and create authoring software. Developed curriculum, taught students design and computer skills, and supervised daily classroom activities. Coleader of project during principal investigator's sabbatical. Gathered and analyzed data; wrote journal articles and implementation manuals based on results. Presented results at conferences.

VIDEO PRODUCER
1989–1991
University of Wisconsin Education Extension

- Created a series of videotapes on gifted education for use in pre-/in-service teacher training. Translated concepts into visual/aural media. Coordinated locations and shooting schedules with national and local experts and area schools. Supervised editing and all stages of production.

Kevin Loniello
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kloniello@nccdglobal.org

Objective

To promote just and equitable social systems for individuals, families, and communities.

Technical Proficiencies

Main Languages: XML, HTML, Oracle SQL, PL-SQL, ANSI-SQL, SAS
Operating Systems: Windows 3.1 through 8.1, and Mac OS 8.0 – X (10)
Databases: DB2, Oracle, Oracle Express, MySQL, SQL Server, Microsoft Access

Work Experience

Analytics Manager, March 2005 – Present
National Council on Crime and Delinquency – Children's Research Center, Madison WI
- Oversee a team of analysts in all analytic work for data reporting services in support of Child Protective Services and Juvenile Justice agencies in several states.
- Manage personnel and team workflow to ensure completion of projects
- Coordinate the design and development of new client applications
- Manage-by-data consulting for external clients
- Lead training, presentations, and support business development

Laboratory Supervisor, May 2004 – March 2005
American Red Cross, Madison WI
- Supervised all personnel and equipment in two labs (manufacturing and QC);
- Oversaw payroll and HR functions for personnel in my charge;
- Conducted all lab meetings and organized/supervised all training activities;
- Researched special problems in the manufacturing process and developed solutions;
- Designed, wrote and supported a QC problem log tracking database/user interface;

Director – Information Technology and Web Development, August 2003 – May 2004
Madison Research, Madison WI. – Contractor Position
- Purchased and supported computers, applications, networks and phones for all employees;
- Designed and developed company website and several web-based applications;
- Designer and manager of all databases;
- Project team representative to parent company, Bank of New York, New York, NY

Research and Development Scientist, September 2000 – August 2003
Biochemical Assay Development Group, PanVera (now Invitrogen), Madison,
WI.

- Designed and developed high-throughput kinase and phosphatase activity assays, as well as nuclear receptor assays as part of the biochemical assay development group. Assay formats primarily included Fluorescence, luminescence, Fluorescence Polarization (using several different dyes), Fluorescence Resonance Energy Transfer (FRET) and Time- Resolved FRET;
- Consulted on development projects for other groups and collaborators (custom assay development);
- Other duties included Six-Sigma/DOE consulting, lab robotics manager and manager/trainer for all Tecan® plate readers and liquid handling systems.

Research Scientist, May 1997 – August 2000
Microbiology Section, Integrated Paper Services Inc., Appleton, WI.

- Designed protocols for research in quality control and new product development;
- Preformed experiments and data analysis in bacterial, fungal and chemical studies;
- Worked directly with the department head on independent testing and corroborative research projects for local and international clients.

U.S. Army Staff Medical NCO, November 1988 – February 2001
114th Combat Support Hospital, Madison, WI.

- Acting First Sergeant for 2 years, supervised over 100 individuals through 5-7 direct reports;
- Desert Storm Veteran;
- Conducted both medical and tactical training for several different units;
- Served as first-line supervisor of EMT section and clinical laboratory services consultant;
- Security Clearance: Secret - NSA Granted.

Education

- Digital Forensics Certificate, Madison College, Summer 2014
- Oracle Certified Training - Oracle Basic, Advanced SQL, Performance Tuning, J-Developer Course, 2004-2008
- Six-Sigma/Design of Experiment (DOE) certified for process optimization, StatEase, 2002
- M.S. Microbiology, UW Oshkosh, 2001
  Emphasis: Molecular Genetics of Cyanobacterial stress promoters
- B.S. Microbiology and Public Health, UW Oshkosh,
  1997 Emphasis: Microbial Physiology and
  Biochemistry
- A.S. Chemistry, UW Oshkosh & UW Madison, 1997

GANESH BABHU JEYAPERUMAL RAMASAMY
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EDUCATION

ROCHESTER INSTITUTE OF TECHNOLOGY, ROCHESTER, NEW YORK
Master of Science in Computer Science. GPA: 3.8/4

PSG COLLEGE OF TECHNOLOGY, COIMBATORE, INDIA
Bachelor of Technology in Information Technology, April 2006

TECHNICAL SKILLS

Languages:	C#, ASP.NET MVC, Javascript, Java, SQL, J2EE, XML, CSS, HTML, C++
Databases:	MS SQL server, Oracle
Others:	Web services, IIS, Apache Tomcat, JUnit, Microsoft Visual Studio, Eclipse, Crystal Reports, SAP BusinessObjects – Universe, WebIntelligence, Rational Rose, Microsoft Visio, Visual Source Safe, Team Foundation Server, SVN, CVS, Toad, Jmeter, PHPUnit, Jquery, Ajax, Team Foundation Build and Ant

PROFESSIONAL EXPERIENCE

SYSTEMS ENGINEER
8/2012 – Present
National Council on Crime and Delinquency
- Developed secure web-based quality improvement and decision support system used by social workers.

SOFTWARE DEVELOPER-R&D
8/2010 – 8/2012
Epic, Madison, Wisconsin, USA
- Involved in defining and implementing performance testing strategy using Java, web services and Jmeter. Implemented an enhanced version of BI services with caching feature using J2EE.
- Developed windows service using C# to integrate Epic application with Crystal reports.

- Developed SAP BusinessObject Universe, WebI reports, Crystal reports and their integration with Epic application using .NET and Java SAP BO SDKs.
- Participated in all phases of system development, consultation, and analysis, design, programming, testing, documentation and code review.
- Understand US Healthcare essentials and certified in "Epicare Inpatient" and provided support.

WEB DEVELOPER ENGINEER INTERN
12/2009 – 10/2010
Minitab Inc., Pennsylvania, USA
- Involved in implementation of Continuous Integration using Team Foundation Build (MSBuild) across different branches integrating with source control, work items and unit test.
- Involved in developing custom MSBuild tasks using C#.

DEVELOPER INTERN
06/2009 – 08/2009
Synacor, Buffalo, New York, USA
- Developed internal tools using Perl, LAMP(Linux, Apache, PHP and MySQL) and jquery.
- Involved in writing PHP unit tests.
- Involved in the development and documentation of the content management system components.

PROGRAMMER ANALYST
05/2006 – 07/2008
Cognizant Technology solutions, India
- Designed, developed and tested web applications using J2EE struts and spring.
- Designed, developed and tested core Java applications.
- Mentored group of 30 entry level trainees.
- Interacted with clients for gathering requirements.
- Led a team of 5 and was an active team player.
- Maintained internal applications and their database.

PROJECTS

- Business Intelligence Service with cache: Designed and developed a J2EE application which is used to serve requests from the dashboard to access data from scheduled WebI reports. This includes caching of the data cube from WebI reports (SAP BO Server) in memory/file and using the data from the cache to serve user request instead of loading a copy of the data cube for each request.
- Business Intelligence Status Updater: Developed a multi-threaded application to update the status of the scheduled crystal and WebI reports based on the report status retrieved from the BOE server using SAP BOE SDKs.
- *Corporate Website Development and Maintenance:* Involved in the development of website of a leading energy supplier in UK using J2EE Spring framework. Developed Java applications that interact with the external systems for various reasons like inbound, outbound (xml, csv) data and authentication. Led a team in developing few use cases.
- *Implementation of Continuous integration:* Used Microsoft Team Foundation Build to implement Continuous integration for the organizations ASP .NET web application and other shared library applications developed using agile methodology (Scrum). The MSBuild based script was customized in such a way that it can be globally used across all branches and it also involved developing MSBuild custom Tasks using C#.
- *Enhancement of H2 Database Engine:* H2 is a Java SQL database. Replaced the default cache replacement technique LRU by implementing two cost sensitive cache replacement algorithms to improve the execution time and implemented B+ tree indexing to improve the indexing technique.
- *Web Based User Mode Linux Administration:* A project to enable the Cognizant Technology Solutions administrators to control over all the virtual Linux using a web portal using J2EE and SQL server.
- *Teaching Mobile Robot Laboratory:* Mobile Robot laboratory is a project that aims at developing robots to assist teaching various advance computer science courses in the department of Computer Science, RIT. My role is to develop course material for graduate level networking courses. One of the implemented protocols will be used by the robots to communicate with each other similar to DSR.
- *Perl Page Monitor:* This tool is used to monitor the web site and report the error dynamically without any extra load. Perl modules like DBI, Cache::Memcached::Fast, CGI and HTTP::Daemon were used.
- *Co-Clustering Image Features and Semantic Concepts:* Working presently to propose and implement an algorithm to classify images based on features and semantic concepts.

LinkedIn: http://www.linkedin.com/in/ganeshramasamy

DANIEL T. FEENEY
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EDUCATION

B.S., Inter-arts and Technology, University of Wisconsin–Madison, 2002

EXPERIENCE

DATABASE/SYSTEMS ADMINISTRATOR
2004 – Present
National Council on Crime and Delinquency (NCCD). Madison, Wisconsin
- Works with client technical contacts to develop, implement, and maintain data extract processes. Coordinates database code deployment and oversees regular analysis batch tasks. Installed and configured SUN servers and EMC SAN technology. Implemented Oracle RAC database to support data warehousing/DSS reporting applications.

INTERNET APPLICATION DEVELOPER
2003–2004
NCCD
- Developed middleware components in ASP and J2EE for statewide web applications serving New Jersey and Virginia. Assisted in coding client-side functionality using JavaScript. Installed and configured Red Hat Enterprise Linux for use as a J2EE test server. Installed and configured IBM WebSphere Application Server in a Red Hat Enterprise Linux environment.

CABLE ASSISTANT
2002–2003
City of Fitchburg, Wisconsin
- Coordinated installation and configuration of computer equipment including PC and Macintosh video editing workstations. Created a multi-platform wireless network for multimedia production.

WEB DESIGNER
2000–2002
LaFollette School of Public Affairs, Madison, Wisconsin
- Designed and implemented a web presence for the LaFollette School. Work with a faculty committee on the design of the website project. Coordinated web and database server configuration with IT staff enabling dynamic web content.

CERTIFICATIONS

Oracle Certified Professional—Certified March 2006

Oracle Certified Associate—Certified September 2005

Sun Certified Java Programmer—Certified April 2004

SHANNON FLASCH
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EDUCATION

Master of Public Administration, public and nonprofit management and policy, Wagner School of Public Service, New York University, 2006

Bachelor of Arts, *magna cum laude*, Mount Holyoke College, South Hadley, MA, 1999

EXPERIENCE

ASSOCIATE DIRECTOR
7/2012 – Present
SENIOR PROGRAM SPECIALIST
2008–2012
National Council on Crime and Delinquency (NCCD), Madison, Wisconsin
- Coordinate and support projects with social service agencies in child protection, adult protection, and TANF to develop and implement tools to improve consistency and validity in agency decision making. Collaborate with research staff to gather data regarding reliability and efficacy of decision-making systems and tools and to write reports and articles to disseminate research findings. Develop and deliver training curricula to assist agencies in the implementation and support of assessment tools and systems.

PROGRAM ASSOCIATE
2007–2008
NCCD
- Works with senior program associates on Structured Decision Making® (SDM) projects in different states, focusing on case reading, technical assistance, and SDM® training. Performs literature reviews to examine the existing evidence on emerging approaches to adult and child protective services and their relevance to the SDM system.

COORDINATOR
2007
New Project Development, the William T. Grant Foundation, New York, NY

- Supported the president in the creation of new programs and in the revision and improvement of existing processes. Developed performance indicators system to measure, track, and report on the foundation's performance in key areas. Served on systems integration group to improve connections among IT systems at the foundation.

SPECIAL ASSISTANT
2003–2007
Program and Research, the William T. Grant Foundation

- Supported the president's activities in reviewing and improving grantmaking. Designed post-award review database to track grantee reports and related staff follow-up, and trained grantmaking staff in use of system. Coordinated first two years of Distinguished Fellows program. Assisted senior staff with subject summaries to place the foundation's research grants in the context of work conducted and funded by others.

ASSISTANT TO THE EXECUTIVE OFFICE
2002–2003
The William T. Grant Foundation

- Provided administrative support to the president's office. Assisted in researching and drafting the president's speeches, essays, and articles. Served on staff grantmaking committee.

PROGRAM COORDINATOR FOR EDUCATION
1999–2002
English-Speaking Union of the United States, New York, NY

- Coordinated National Shakespeare Competition. Wrote curriculum and selected participants for online Shakespeare project. Wrote articles for monthly newsletter for English language learners. Assisted in English language tutoring program, including volunteer management and student assignments.

PUBLICATIONS AND PRESENTATIONS

2010   Johnson, K., Flasch, S., Park, K., & Wagner, D. *Developing the Welfare-to-Work Participation and Employability Appraisal Screening: A Retrospective Study*. Madison, WI: Children's Research Center.

2010   Park, K., Johnson, K., Flasch, S., & Bogie, A. *Structuring Decisions in Adult Protective Services*. Madison, WI: National Council on Crime and Delinquency.

2008   Johnson, K., Bogie, A., Flasch, S., & Wagner, D. *Feasibility and Design of an Adult Protective Service Risk Validation Study*. Madison, WI: National Council on Crime and Delinquency.

2005   Flasch, S., & Seidman, E. *Chaos: The Collision of Trends and Policies in the Education of Immigrant Youth*. Society for Research in Child Development Biennial Conference (panel presentation).

2005   Hein, K., & Flasch, S. Adolescence: Youth as a Resource. In Cosby, A., Greenberg, R., Southward, L., & Weitzman, M. (Eds.), *About Children: An Authoritative Resource on the State of Childhood Today*. Washington, D.C.: American Academy of Pediatrics.

CHRISTOPHER SCHARENBROCH

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cscharenbroch@nccdglobal.org

EDUCATION

University of Wisconsin–Madison (2001)
BS in sociology, concentration in analysis and research

PROFESSIONAL EXPERIENCE

SENIOR RESEARCH ASSOCIATE/RESEARCH ANALYST
2001 – Present
National Council on Crime and Delinquency, Madison, Wisconsin
- Conducts risk assessment and evaluation studies. Develops and performs statistical analyses. Generates reports to communicate methodology and results. Consults with clients regarding translation of research questions into hypotheses for testing, as well as meaning and implications of findings.

RESEARCH INTERN
2000–2001
Rural Sociology, University of Wisconsin–Madison
- Assisted in multidisciplinary research regarding agricultural pollution and management behavioral practices. Analyzed statistical data using SPSS software and produced two extensive reports including graphs, tables, and summaries for separate magazine publishers. Managed data collection and participated in survey construction and interviewing. Also co-authored peer-review journal article.

SELECTED PUBLICATIONS/REPORTS

2013   Baird, C., Johnson, K., Healy, T., Bogie, A., Wicke Dankert, E., & Scharenbroch, C. *A comparison of risk assessment instruments in juvenile justice.* Madison, WI: National Council on Crime and Delinquency.

2010   Scharenbroch, C., Healy, T., Johnson, K., & Wagner, D. *Santa Cruz County Human Resources Agency special topic report on early reunification: A validation of the preliminary concurrent planning assessment*. Madison, WI: NCCD Children's Research Center.

2010   Wagner, D., O'Conner, D., Scharenbroch, C., & Coenen, K. *Maryland Department of Human Resources evaluation of safety and risk assessment practice at intake*. Madison, WI: NCCD Children's Research Center.

2009   Scharenbroch, C. *New South Wales Department of Community Services pre-implementation examination of a risk assessment's ability to classify families by the likelihood of subsequent child protective services involvement*. Madison, WI: NCCD Children's Research Center.

2007   Johnson, K., Wagner, D., & Scharenbroch, C. *California Department of Social Services Children and Family Services Division risk assessment validation: A prospective study*. Madison, WI: NCCD Children's Research Center.

2006   Johnson, K., Wagner, D., Scharenbroch, C., & Healy, T. *Minnesota Department of Human Services risk assessment validation: A prospective study*. Madison, WI: NCCD Children's Research Center.

2004   Johnson, K., Wagner, D., Scharenbroch, C. *New Mexico Children, Youth and Families Department prospective validation of the juvenile justice risk assessment*. Madison, WI: NCCD Children's Research Center.

ERIN WICKE DANKERT
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EDUCATION

University of Wisconsin–Madison
Bachelor of Science, statistics, sociology, concentration in analysis and research; psychology (2006)

PROFESSIONAL EXPERIENCE

RESEARCHER
2006 – Present
National Council on Crime and Delinquency, Madison, Wisconsin
- Ad hoc and routine data analysis and reporting for child welfare agencies using SQL and SPSS; documentation of complex methodology; risk validation and recurrence of maltreatment studies in child welfare, adult protection, and juvenile justice; report writing, including routine management reports; data collection and entry; facilitating work groups; quality improvement

UNDERGRADUATE RESEARCH ASSISTANT
2004–2006
Wisconsin Longitudinal Study, University of Wisconsin–Madison
- Transcription of audio segments to assess respondents' cognitive abilities; processing interviewer notes and making data corrections; creating variables for public use from raw data; writing documentation and designing flowcharts for public access; performing statistical analyses for use in a summary report for the respondents; maintaining confidentiality standards

ADDITIONAL RESEARCH EXPERIENCE

- Wide range of experience using statistical computing packages, including SAS, SPSS, MINITAB, R, and STATA

- Experience navigating large relational databases, including those housed in ORACLE and Access databases.

- Class Projects, University of Wisconsin–Madison, College of Letters and Science Survey design and analysis; conducting interviews and focus groups; experimental design and analysis; regression analysis; data modeling

COLLEEN KERWIN
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EXPERIENCE

NATIONAL COUNCIL ON CRIME AND DELINQUENCY
Researcher
2013 – present
- Provides technical assistance, evaluation, and consulting services to social services agencies and schools; conducts evaluation studies under contract to federal/state/local agencies. Provides custom data collection and report writing services to NCCD clients.

THE UNIVERSITY OF TEXAS AT AUSTIN, OFFICE OF THE VICE-PRESIDENT AND CHIEF FINANCIAL OFFICER, LOCAL AREA NETWORK TEAM
Student Assistant
2011 – 2013
- Provided computer support, resolved computer issues within 1 business day, average problem resolution within 20 minutes
- Diagnose and remove viruses, re-install programs and salvage files/information
- Worked in group setting, with other members of LAN team, to problem solve and resolve computer issues

CALCULUS TUTOR (SELF-EMPLOYED)
Tutor
2010 – 2011
- Helped students exceed expectations in Calculus I

GABRIEL PROJECT (ASSOCIATED WITH AUSTIN DIOCESE, PREGNANCY HELP CENTER)
Office Intern
June 2009 – August 2009
- Organized material donations, client documentation, and reports
- Assisted in classes offered to teach clients about pregnancy topics

EDUCATION

University of Texas at Austin, College of Natural Sciences
BS (2013) in Mathematical Sciences, Emphasis in Statistics, Probability and Data Analysis

Additional Criminal Justice/Sociology Coursework: Sociology of the Criminal Justice System, Criminology, Social Psychology of the Law, Social Statistics: Longitudinal Data Analysis, Race, Culture and Migration, Race, Ethnicity and Gender in Demography

Supie Shea

Summary of Experience:

Supie has worked as a Senior Client Decision Manager for Decision Lens since October 2010. In this role, she provides account coordination and client service across a portfolio of government and commercial clients. Supie assists and leads decision project implementations, facilitates executive client meetings and processes for decision making, serves as a primary trainer for Decision Lens software and provides analytical decision-making support to leaders in industries such as transportation, defense, intelligence, and pharmaceutical.

Supie has provided transportation-related client service to customers including Delaware Department of Transportation (DelDOT) and Florida Department of Transportation (FDOT). At DelDOT, Supie has facilitated project prioritizations used for mid and long-term transportation capital planning efforts. FDOT's focus centered on prioritizing research projects which would, in turn, better inform key areas of focus and resource alignment for planning projects. Supie supports client efforts at every phase of the Decision Lens process, from the development and weighting of structured, criteria-based decision models to the evaluation of alternatives using custom-defined rating scales to the allocation of resources based on project value.

Prior to joining Decision Lens, Supie worked as a solutions consultant at IBM. There she worked with public sector clients to implement Asset and Work Management software across their organizations.

Current Position:

Senior Client Decision Manager – Decision Lens, Inc.	Oct 2010 – present

Previous Positions:

Solutions Consultant – IBM/Maximo	January 2007 – Oct 2010
Operations Manager – Metaformers	March 2005 – January 2007
Inside Sales - PeopleSoft/Oracle	Apr 2004 – March 2005

Education:

Bachelor of Fine Arts, Washington University in S. Louis, 1991

Dr. Alison A. Denton

Summary of Experience:

Dr. Alison Denton, a Senior Client Decision Manager for Decision Lens, provides decision making support to a diverse portfolio of commercial and government business leaders, with a specific focus in the transportation industry. An experienced facilitator and presenter with expertise in stakeholder collaboration and public processes, Alison assists clients in prioritizing opportunities, allocating resources, and driving positive change within their organizations. Prior to joining Decision Lens, Alison was the Director of Facilities Planning in K-12 education with a focus on capital planning, process improvement, and public participation. Before that she worked as an information technology professional and administrator at the Illinois Institute of Technology in Chicago, IL.

Alison's current Decision Lens client base consists, in part, of the following customers:

- Delaware Department of Transportation
- Minnesota Department of Transportation
- Mississippi Department of Transportation
- Pennsylvania Department of Transportation
- Pennsylvania Turnpike Commission
- Virginia Department of Transportation
- Federal Railroad Commission (US DOT)

Key skills include: strategic thinking and planning; problem-solving; presenting complex ideas, processes, and data to a variety of audiences; facilitating meetings in pressure-filled situations; data analysis; developing creative solutions.

Current Position:
Senior Client Decision Manager – Decision Lens, Inc.   2012 – Present

Previous Positions:
Director of Facilities Planning, Arlington Public Schools   2003– 2012
Assistant Dean for Special Projects, IL Inst of Technology   1999 – 2002

Education:
Ed.D., Educational Leadership & Change; Fielding Graduate University 2010
M.S., Information Science; University of Michigan   1996
B.A., English & Natural History; Carleton College   1994

Appendix C

M/W/DBE Participation Materials

COUNTY OF ALLEGHENY
M/W/DBE PARTICIPATION WAIVER REQUEST

PROVIDER	National Council on Crime and Delinquency
ADDRESS	1970 Broadway, Suite 500, Oakland, CA 94612
CONTACT PERSON	Jesse Russell
TELEPHONE NUMBER	1-800-306-6223
EMAIL ADDRESS	jrussell@nccdglobal.org
FISCAL YEAR/PERIOD	July 1 - June 30

In all instances a good faith effort must be made to meet the M/W/DBE contract goals as outlined in Section 3.10.8.8 of the "Minority and Women Business Enterprise Utilization Affirmative Action Requirements" document.

If you plan to perform the entire contract without using M/W/DBE subcontractors and/or suppliers or have not completely met the M/W/DBE goal of 13% MBE 2% WBE, the following must be attached and submitted with this form:

* A detailed explanation of your normal business practice
* Operation and/or Inventory Profile
* An active company supplier/subcontractor diversity policy
* Explanation as to why M/W/DBE participation waiver is being requested

Note: The fully completed M/W/DBE Participation Statement must accompany this waiver request, that shows your "Good Faith Effort"

Prepared By: Katherine H. Park   Title: Vice President   Date: 4-17-14   Signature:

COUNTY OF ALLEGHENY
M/W/DBE PARTICIPATION STATEMENT
Failure to complete this form and submit it with your contract may cause delays in processing
SOLICITATION AND COMMITMENT
MINORITY, WOMEN AND DISADVANTAGED BUSINESS ENTERPRISES

FISCAL YEAR/PERIOD	NAME OF PROVIDER	ADDRESS		PHONE NUMBER
July 1 - June 30	National Council on Crime and Delinquency	1970 Broadway, Suite 500, Oakland, CA 94612		1-800-306-6223

List below ALL M/W/DBE's that were solicited – whether or not commitment was obtained – Copy this form as necessary

MBE ☐ WBE ☐ DBE ☐	TYPES OF SUBCONTRACT WORK OR MATERIALS	DATE SOLICITED	COMMITMENT MADE	GIVE REASON(S) IF NO COMMITMENT MADE
CERTIFIED BY: N/A		N/A	☐ YES ☐ NO	
COMPANY NAME	N/A	SOLICITATION METHOD	(IF YES GIVE DATE)	N/A
N/A		N/A	MO DAY YR	
ADDRESS				
N/A			AMOUNT COMMITTED	
CONTACT PERSON/PHONE			$	
N/A			% OF TOTAL BID	
EMAIL		QUOTE RECEIVED		
N/A		☐ YES ☐ NO		

MBE ☐ WBE ☐ DBE ☐	TYPES OF SUBCONTRACT WORK OR MATERIALS	DATE SOLICITED	COMMITMENT MADE	GIVE REASON(S) IF NO COMMITMENT MADE
CERTIFIED BY:			☐ YES ☐ NO	
COMPANY NAME		SOLICITATION METHOD	(IF YES GIVE DATE)	
			MO DAY YR	
ADDRESS				
			AMOUNT COMMITTED	
CONTACT PERSON/PHONE			$	
			% OF TOTAL BID	
EMAIL		QUOTE RECEIVED		
		☐ YES ☐ NO		

MBE ☐ WBE ☐ DBE ☐	TYPES OF SUBCONTRACT WORK OR MATERIALS	DATE SOLICITED	COMMITMENT MADE	GIVE REASON(S) IF NO COMMITMENT MADE
CERTIFIED BY:			☐ YES ☐ NO	
COMPANY NAME		SOLICITATION METHOD	(IF YES GIVE DATE)	
			MO DAY YR	
ADDRESS				
			AMOUNT COMMITTED	
CONTACT PERSON/PHONE			$	
			% OF TOTAL BID	
EMAIL		QUOTE RECEIVED		
		☐ YES ☐ NO		

Prepared By: Katherine H. Park   Title: Vice President   Date: 4-17-14   Signature: _____

M/W/DBE Participation Waiver Request

Please accept the National Council on Crime and Delinquency's (NCCD) request for a waiver of the M/W/DBE participation requirements. Our normal business practice is to hire full- and part-time employees; we rarely subcontract. The primary reason we limit subcontracting is the confidential nature of the data we work with on a day-to-day basis. Staff of the Children's Research Center (CRC), a division of NCCD, regularly work with confidential information related to children and families involved in child welfare, TANF, juvenile justice, and/or education. Data are routinely provided to CRC from multiple jurisdictions in the United States and Australia. All employees are required to sign confidentiality agreements as a condition of employment and cannot disclose any case information to anyone outside of CRC. All data are secured physically and electronically. Our office doors are locked 24 hours per day, seven days per week, and are accessible by entering a security code.

As a nonprofit social research organization, NCCD does not have inventory. NCCD is governed by a Board of Directors and does not have owners.

NCCD provides equal employment opportunities to all qualified applicants regardless of age, religion, sex, physical disability, medical condition, marital status, color, sexual orientation, race, national ancestry, or any other protected category. Please see NCCD's Affirmative Action Plan.

Although it is not normal NCCD business practice to subcontract, some of the work proposed by NCCD in this application requires highly specialized skills and software. NCCD staff reviewed the list of approved Allegheny County and Pennsylvania Unified Certification Program M/W/DBEs found at www.county.allegheny.pa.us/mwdbe for a company to partner with and did not find any that had the qualifications necessary to carry out the specialized work. However, NCCD has chosen to subcontract with Decision Lens, a privately held, cloud-based prioritization and resource allocation software company which provides a solution to organizations' critical decision-making in strategic planning, portfolio prioritization, R&D, and resource optimization. Decision Lens combines experts' judgments with data to establish priorities in an efficient, collaborative framework. Unlike static spreadsheets and unstructured boardroom table discussions, Decision Lens rapidly engages decision-makers to achieve better outcomes in a resource-constrained environment. Driven by sophisticated analytics, the software allows organizations to identify and prioritize criteria that tie directly to its strategic goals.

NCCD | National Council on Crime & Delinquency

Affirmative
Action Plan

2013

Table of Contents

I.   INTRODUCTION

The National Council on Crime and Delinquency (NCCD) was organized in 1907 as the National Probation Association. In 1947 it became the National Probation and Parole Association. In 1960 its scope was expanded, and it became the National Council on Crime and Delinquency.

NCCD is a nationally recognized non-profit, private agency working to prevent and control crime and delinquency by utilizing both professional expertise and citizen action.

NCCD is the country's major non-governmental agency dealing with the entire criminal justice spectrum—from police to courts to corrections.

II.   SCOPE OF AFFIRMATIVE ACTION PLAN

This Affirmative Action Plan (AAP) is for the headquarters facility in Oakland, California and all other domestic NCCD locations. The compliance year for this plan is January 1, 2013, through December 31, 2013.

III.   REAFFIRMATION OF THE EQUAL EMPLOYMENT OPPORTUNITY POLICY

NCCD is committed to an equal employment opportunity for all employees and applicants. NCCD will ensure that management representatives and employees shall comply with both the spirit and intent of federal, state, and local regulations by providing an equal employment opportunity without regard to race, color, sex, religion, national origin, ancestry, marital status, sexual orientation, gender identity, gender expression, age, physical or mental disability, or status as a Vietnam era veteran or qualified disabled veteran, except where age or sex are bona fide occupational qualifications or disability is a bona fide disqualification.

Management representatives will ensure that positive steps are taken to comply with this policy, while achieving the objectives and goals of NCCD for continued growth and programmatic success.

Alex Busansky, President of NCCD, reaffirms his personal commitment to provide an equal employment opportunity in an annual policy statement to all employees. The policy statement includes the Equal Employment Opportunity policy outlined below:

Equal Employment Opportunity Policy

A.   Management representatives will recruit, hire, upgrade, train and promote in all job classifications without regard to race, color, religion, sex, national origin, ancestry, marital status, sexual orientation, gender identity, gender expression, age, physical or mental disability, or status as a Vietnam era veteran or qualified disabled veteran, except when a disability is a bona fide disqualification.

B.   Management representatives will take affirmative action to ensure that minorities and females are introduced into the work force and are given consideration as promotional opportunities arise.

C.   Management representatives will ensure that all other personnel actions such as compensation, benefits, layoffs, recalls, terminations, educational assistance, social and recreational programs will be administered without regard to race, color, religion, national origin, sex, age, ancestry, marital status, sexual orientation, gender identity, gender expression, physical or mental disability, or status as a Vietnam era veteran or qualified disabled veteran.

D.   Managers and supervisors will base employment decisions on the principles of an equal employment opportunity with the intent of furthering NCCD's commitment.

E.   Identification of NCCD's EEO Officer and EEO Coordinator.

F.   An invitation to employees and applicants to review the Affirmative Action Program by appointment with the EEO Coordinator.

IV.   DISSEMINATION OF POLICY

To ensure that all employees, applicants for employment, and relevant sections of the community are aware that this establishment is an Equal Opportunity Employer and that NCCD practices affirmative action, the following steps have and will continue to be undertaken:

A.   Internal Dissemination

1.   At least once each year, the EEO Policy will be restated in appropriate NCCD publications, which are intended for the general reading by the public, management, employees, and applicants.

2.   Each year at a designated manager's a meeting, the Affirmative Action Program, EEO and AAP policies, the intent of the policies, and the individual supervisor, manager, and/or officer responsibilities for effective implementation be discussed.

3.   Employees will be notified of the existence of NCCD's EEO and AAP by the posting of the policy statement on key bulletin boards, which are readily accessible to all employees. The letter is addressed to all employees and indicates that all aspects of employment are available to all employees. Additionally, employees are encouraged to inform management whenever they believe they have encountered a violation of NCCD's EEO Policy.

4.   Information concerning the EEO Policy and Affirmative Action Program will be included in all employee orientation programs and is communicated to all applicants.

5.   The EEO Policy and the reaffirmation statements described above have been posted in the following locations:

- Coffee/Lunch Area
- Photocopy Room
- Made available to all applicants in the reception area

B.   External Dissemination

1.   Recruiting sources (minority and women's organizations, community organizations, state employment development departments, and colleges as appropriate) will be informed annually, in writing, of NCCD's EEO Policy, as required by Executive Order 11246, as amended. These sources will be requested to recruit and refer qualified minorities and females for appropriate job openings. The list will be periodically reviewed to determine the effectiveness of the recruiting sources.

2.   The Equal Employment Opportunity clause and the requirements of Executive Order 11246, as amended, will be included, when necessary, in appropriate purchase orders, contracts, etc. Certificates of Compliance will be processed in accordance with applicable federal rules and regulations.

3.   Written notification of NCCD's EEO Policy and Affirmative Action Program will be sent to appropriate subcontractors, vendors, and suppliers, requesting appropriate action on their part.

4.   When employees are pictured in company advertising or other promotional literature, minorities and women will be shown.

The existence of the Affirmative Action Program will be communicated to all applicants for employment. Upon request, appropriate sections of the AAP will be made available for their review.

V.   EEO RESPONSIBILITIES

In most instances, program/project managers and supervisors will be responsible for the selection of individuals to fill approved vacancies. However, the selection process requires that managers and supervisors be aware and take into consideration the EEO Policy and Affirmative Action Program goals. NCCD's EEO Policy and AAP will be implemented and administered as outlined below.

A.   EEO Officer

Alex Busansky, President, has assigned the overall responsibility for Equal Employment Opportunity and Affirmative Action Program Compliance to Antoinette Aleman, Director of Administration, who is the Equal Employment Opportunity Officer for NCCD. As EEO Officer, Antoinette Aleman is specifically responsible for the implementation and monitoring of the EEO Policy and Affirmative Action Program. Antoinette Aleman's duties and responsibilities include as a minimum, but are not limited to the following:

1. Ensuring that an Affirmative Action Program is adopted and effectively implemented, developing policy statements, internal and external communication techniques;

2. Designating or assisting in the selection of an EEO Coordinator;

3. Assisting the identification of target areas, suggesting corrective action, and the establishment of goals and objectives;

4. Designing and implementing audit and reporting procedures that will measure progress toward goals and objectives;

5. Conducting meetings with managers, supervisors, and employees to ensure that NCCD's EEO Policy and AAP objectives are understood and good-faith efforts are being made to achieve results;

6. Semi-annual reviews of NCCD's AAP progress toward goals and objectives with senior management;

7. Ensuring that the performance of management employees is evaluated, in part, on the basis of their affirmative action efforts and results;

8. Providing guidance for managers and supervisors in ensuring a harassment free work environment and;

9. Keeping management informed of developments in EEO/AA laws and requirements.

B.   EEO Coordinator

The Human Resources Specialist will be NCCD's EEO Coordinator for the AAP year. The HR Specialist will be responsible for assisting the EEO Officer, as requested, in the performance of the duties stated above, developing or obtaining assistance in creating, implementing, and monitoring of the AAP. The EEO Coordinator has been given the full support of senior management and is assured the necessary support to execute all AAP responsibilities.

The EEO Coordinator's responsibilities include, but are not limited to the following:

1. Having an updated Affirmative Action Program by January 1 of each calendar year;

2. Assisting management in the identification of problem areas and the development of corrective action steps;

3. Developing the AAP semi-annual progress report and disseminating the results to appropriate management;

4. Serving as liaison between employees and management;

5.   Serving as liaison between NCCD and organizations concerned with employment opportunities for minorities and females;

6.   Promoting NCCD's continued compliance with OFCCP's sex discrimination, religion and national origin guidelines;

7.   Ensuring that minority and female employees are encouraged and afforded a meaningful opportunity to participate in all present and future educational, training, recreational and social activities sponsored by NCCD;

8.   Performing an EEO analysis of special programs, such as social and recreational activities; training programs; developing procedures and counseling employees to ensure that all employees are hired, promoted, transferred, and disciplined without regard to race, color, religion, sex, national origin, age, ancestry, marital status, sexual orientation, mental or physical disability or veteran status;

9.   Reviewing all technical forms (i.e., application forms and posters) for compliance with federal regulations;

10.   Monitoring the effectiveness of the EEO Policy, the AAP, training programs, hiring and promotional patterns to determine if minorities and females are given full opportunity for employment and advancement.

VI.   INTERNAL AUDIT AND REPORTING SYSTEM

An audit and reporting system has been designed which will:

1.   Assist in measuring the effectiveness of the EEO Policy and AAP;

2.   Indicate those areas where remedial action is needed;

3.   Determine the degree to which goals and objectives have been achieved;

4.   Monitor the number of qualified applicants, new hires, promotions, transfers and terminations by race and sex.

This system will be used by the EEO Coordinator in developing semi-annual progress reports to management, which will indicate progress towards AAP goals and objectives. Program/Project management will indicate any current or foreseeable EEO and AAP problem areas, and outline corrective action suggestions.

The EEO Coordinator is responsible for discussing any problems related to the implementation of the EEO Policy and this AAP with appropriate management representatives. Discussions will focus on rejection ratios, the underutilization of minorities and females, charges of discrimination or allegations of harassment. There will be yearly audits of the selection and placement process, paying particular attention to hiring, promotion, transfer, and termination patterns. A report on the status of

NCCD's Affirmative Action Program will be made semi-annual, and remedial steps will be taken which are necessary to provide for the effective implementation of the program.

Progress Reports

A Progress Report will be developed by the Human Resources Specialist, which will summarize personnel transactions, actions taken to implement the objectives of the AAP, and action steps to be taken to overcome any identified deficiencies.

When appropriate, the Progress Report will be distributed to all members of management who are involved in the selection process. The Human Resources Specialist will furnish guidance and counseling to program/project management on problem areas and any corrective action recommendations. The Progress Report will be submitted to the Executive Management Team for review and any additional action, if required.

VII.   GUIDELINES ON RELIGION AND NATIONAL ORIGIN

The policies and practices of NCCD have been examined in light of the OFCCP guidelines. NCCD policies support both the letter and spirit of the guidelines. Specifically:

1. Recruiting activities are conducted without regard to religion or national origin.
2. As noted in the EEO policy NCCD prohibits discrimination against employees based on national origin or religion.

3. All employees have an equal opportunity to any job for which they are qualified. Religion or national origin is not considered a basis for selection. No information relative to the religious practices or national origin of any applicant or employee is solicited.

4. No distinction is made based upon religion or national origin with regard to employment opportunities, wages, hours, or other conditions of work.

5. NCCD programs are conducted without regard to religion or national origin.

6. NCCD will attempt to accommodate the religious observances and practices of any employee or prospective employee unless this would cause an undue business hardship.

VIII.   SEX DISCRIMINATION GUIDELINES

NCCD has reviewed the OFCCP race and sex discrimination guidelines and has examined NCCD policies and practices in light of those guidelines. No policy, practice, or procedure of NCCD violates the letter or spirit of those guidelines. Specifically:

1. Recruiting activities are conducted without regard to race or sex.

2.   Advertisements in newspaper and other media for employment do not express a gender preference.

3.   NCCD policy prohibits discrimination against employees based on race or sex.

4.   All employees have an equal opportunity for any available job for which they are qualified.

5.   No distinction based upon race or sex is made with regard to employment opportunities, wages, hours, or other conditions of employment.

6.   No employment distinction is made between married and unmarried persons on the basis of sex.

7.   Appropriate physical facilities are available to both sexes.

8.   Females are not denied positions for which they are qualified based upon any "state restrictive law."

9.   No differences for male or female employees are specified.

10.   Wage schedules are not based upon the sex of an employee.

11.   Action has been taken to ensure that the workplace is free from any harassment or intimidation based on sex. The NCCD employee handbook is designed to communicate these policies to all employees. In addition, these policies have been covered in mandatory management briefings.

12.   As part of the Affirmative Action Program, women are actively recruited for employment opportunities.

13.   Qualified men and women are included in all NCCD programs.

NCCD has a standard, pre-existing family care and employee medical leave policy, which is consistent with all state and federal Family Care and Leave Acts, as well as pregnancy disability requirements. Following childbirth and upon notice of intent to return to work within a reasonable period of time, a female employee is eligible for reinstatement in the same manner and circumstances as males/females on any other type of disability leave.

IX.   LABOR FORCE/AVAILABILITY ANALYSIS

The utilization analysis and subsequent goal-setting process are based upon availability, determined for each job group. In establishing that availability, all eight factors were considered. Some of the eight factors more appropriately reflect the unique characteristics of NCCD's workforce than others. Those factors that received no weighting in NCCD's final availability calculations were not applicable due to the specific, industry-related skills and experience required in a private,

nonprofit agency working to prevent crime and delinquency through research and development and citizen action.

Much of the general population, unemployment data, and general workforce figures do not apply to the necessary skills for a job candidate to be competitive. Much more to the point where the requisite skill figures (external) and, where appropriate, current representation data from "feeder" jobs and job groups (internal). In some cases, specific educational data may have been given more weight. The weights given to each of the factors most clearly mirrors actual hiring/promotional practices.

For promotable and transferable minorities and/or females, all employees are given the opportunity through performance review planning and job posting system to participate in the career planning process. In those specific jobs which fall into an usual pattern of progression, internal availability of appropriate positions or "feeder" jobs reflecting current representation are factored in and form a considerable portion of the availability calculation.

NCCD's internal training classes are either available through voluntary employee participation or mandatory participation. For those using tuition reimbursement to attend NCCD subsidized training, appropriate documentation will be retained.

Current availability analysis is based on 2000 Census Data for each area which is appropriate to each given job group. NCCD's occupation specific analysis for availability realistically reflects the current NCCD workforce and the experience required for technically specific positions within the workforce.

In determining whether minorities and females are underutilized, NCCD has considered the following data:

1. The minority population of the labor force surrounding the Oakland Headquarters and Madison office locations.

2. The availability of females seeking employment in the labor force or recruitment areas

3. The number of minorities/females unemployed in the labor force area surrounding the identified locations.

4. The percentage of the minority/female work force as compared with total work force in the immediate labor force areas.

5. The general availability of minorities/females having the requisite skills in the immediate labor area.

6. The availability of minorities/females having requisite skills in an area from which the location can reasonably recruit.

7. The availability of promotable and transferable minority/female employees within the facility during the AAP year.

8. The existence of training institutions capable of providing persons with the requisite skills.

8

9. The degree of training which NCCD is reasonably able to undertake as a means of preparing minorities/females to advance into other job groups during the AAP year.

10. Minority and female job group availability is based on data provided by the 2000 Census and is summarize in the following factor analysis listed one through eight.

   A. The population of San Francisco, Marin, San Mateo, Santa Clara, Napa, Contra Costa, Alameda, Sonoma and Solano counties, surrounding NCCD's Oakland Headquarters, is 7,150,739 and minorities make up 47.5%:

Population (SF Bay Counties)	7,150,739
Minority Population	3,394,916
Percent Minority	47.5%

   The population of Columbia, Dane, Dodge, Green, Jefferson, Iowa, Rock, and Sauk counties, surrounding the Midwest office in Madison, is 1,000,187 and minority population make up 14.0% of the total:

Population (Madison Area Counties)	1,000,187
Minority Population	140,026
Percent Minority	14.0%

   B. The unemployment rate in the areas surrounding the Oakland headquarters is 6.3% and in areas surrounding the Madison office is 6.5%.

   C. The percentage of women in the workforce nationally is 45.3%.

   D. Training and educational institutions having some capability of training minorities and females in the requisite skills exist in the immediate area.

   E. NCCD does provide a limited amount of formal and informal on-the-job training. This training does allow employees to gain some necessary experience for advancement to a higher paying position or transfer to another position to prepare for future opportunities.

Job Groups

NCCD's job groups have been divided, using the primary EEO-1 categories to determine problems and determine those areas needing additional focus. The primary job groups are based upon EEO-1 and it is by those major job groups that specific goals have been established, where needed. NCCD defines the relevant labor area as that geographic area from which applicants and current incumbents in the positions have been recruited. The appropriate Standard Metropolitan Statistical Areas is the San Francisco PSMA (San Francisco, Marin, and San Mateo)

1. Officials and Managers
2. Professionals
3. Technical

4.   Sales Workers
5.   Office and Clerical
6.   Craft Worker
7.   Operatives (semi-skilled)
8.   Laborers (unskilled)
9.   Service Workers
10.   Trainees

Employees of NCCD fall into EEO-1 categories of Officials and Managers, Professionals, and Office and Clerical.

X.   ANALYSIS OF WORKFORCE, EMPLOYMENT PRACTICES, AND POLICIES

As is evidenced by an examination of the utilization figures, NCCD recognizes there are areas of concern. NCCD will establish targets for females and minorities in any job group that is "underutilized" and incorporate those targets into this AAP. Underutilization can be defined as any negative difference between current representation in a given job group and the requisite availability. There is no technical underutilization if the difference is less than one whole (a fractional part) of a person. As mentioned previously, availability figures are the result of a comprehensive examination of internal and external information, called an eight-factor analysis. This final calculation results in a composite picture of what the workforce should look like - a "benchmark" against which to measure progress and determine areas needing improvement.

The target is based on availability figures. In addition the target is a percentage figure called an Annual Placement Rate (APR). If there are no opportunities, the primary option is to closely monitor termination activity to see that we do not lose ground. If that target is not achieved, it becomes necessary to show what attempts, such as special recruitment,
outreach, and training efforts were made to try and reach the specified target.

NCCD will work on specified targeted areas as opportunities occur. External recruiting efforts will continue to focus on women and minorities for certain job groups to improve applicant flow and subsequent hiring where opportunity occurs and underutilization exists.

NCCD intends and expects all self-analysis information and data to be kept strictly confidential by the Office of Federal Contract Compliance Programs (OFCCP) or any other state or federal agency which obtains or is given access to this Affirmative Action Program, regardless of that agency source. Terms such as "affected class," "under-representation," "underutilization," the "effects of past or prior discrimination," etc., are terms which are required in the preparation of an AAP which is acceptable to the OFCCP; however, NCCD does not intend for these terms to have any independent legal significance, nor shall these terms constitute an admission for any purpose whatsoever.

The following is a summary of the workforce composition for the 2004 AAP year. The selection process, including applicant flow, position titles, job specifications, application forms, interview procedures, and similar factors have been analyzed in terms of any adverse or disproportionate impact.

Workforce Composition

A. Internal workforce by job group, minority and female categories as of September 2013 (See Table A and B).

Job Group	Minorities	Female	Total
Officials	1	4	10
Professionals	18	48	68
Office and Clerical	3	13	14
TOTAL	**22**	**65**	**92**
PERCENTAGE	**23.9%**	**70.6%**	**100.0%**

B. Internal workforce by job group, ethnic status and gender categories.

Males	W	B	H	A	AI	Total
Officials	6	0	0	0	0	6
Professionals	16	1	1	2	0	20
Office and Clerical	1	0	0	0	0	1
TOTALS	**23**	**1**	**1**	**2**	**0**	**27**
PERCENTAGE	**25.3%**	**1.1%**	**1.1%**	**2.2%**	**0.0%**	**29.7%**

Females	W	B	H	A	AI	Total
Officials and Managers	2	0	1	1	0	4
Professionals	35	5	3	4	0	47
Office and Clerical	10	2	0	1	0	13
TOTALS	**37**	**7**	**4**	**6**	**0**	**64**
PERCENTAGE	**40.7%**	**7.7%**	**4.4%**	**6.6%**	**0.0%**	**70.3%**

C. Minority Representation
The total number of employees at NCCD is 92. The total minority representation is 23.9% or 22 (See Table A). The minority availability for all job groups, for the immediate areas, indicate that NCCD should have 39.0% or 35 minority employees.

D. Female Representation
Female representation at NCCD is 70.6% or 65 female employees (See Table A). The combined female availability for all job groups, using Census Data, indicates that NCCD should have 45.9% or 42 female employees.

XI.   DEVELOPMENT AND EXECUTION OF CORRECTIVE PROGRAMS

A.   Program/Project Analysis

In order to increase and/or maintain the representation of minority and females employees throughout the work force, all Directors and managers will be held accountable for monitoring and evaluating their hiring, promotions, transfer, and termination practices.

Directors and managers will be responsible for identifying and helping to develop promotion and transfer opportunities for minority and female employees in their programs whenever and wherever an underutilization is identified. In addition, current eligible employees, as well as applicants, will be informed and encouraged to participate in formal and informal training programs available at or through NCCD and in the community.

B.   Job Group Analysis

Those responsible for the hiring, promotion, transfer, and termination of personnel in each job group will be trained and held accountable for their affirmative action efforts and results. If a job group is identified as underutilized, steps will be taken to identify and to encourage or train minority and female incumbents to qualify for these positions. Additional efforts to identify minority and female recruitment sources will be intensified. The recruitment of minority and female applicants and hiring patterns will be monitored.

C.   Applicant Flow

NCCD will contact appropriate agencies and solicit names of minority and females groups, associations, and institutions which can refer qualified applicants for positions in job groups which have an underutilization of minorities or females.

All NCCD vacancies will be posted internally to provide qualified employees the opportunity to apply for the vacant position. Qualified women and/or minority candidates will be encouraged to apply for vacancies for which there is an identified underutilization.

D.   Selection/Rejection Process

The Human Resources Specialist will monitor the selection decisions for all job vacancies. If a vacancy exists in an area identified as being underutilized, it will be the hiring Director's or supervisor's responsibility to provide the Human Resources Specialist with documentation why qualified minority and female applicants were considered and not selected as the successful candidate.

Where underutilization is identified for a specific job group the Human Resources Specialist will make an annual review of the employee selection process to ensure that practices or policies that could result in minorities and/or females being rejected for employment consideration are eliminated from the selection process.

XII. ACTION TO BE TAKEN BY NCCD TO IMPLEMENT THE 2013 AFFIRMATIVE ACTION PROGRAM

All personnel involved in recruiting, selection, discipline, and related processes will be trained regarding NCCD's affirmative action objectives; equal employment opportunity laws, regulations, and court decisions; and appropriate job-related management practices.

NCCD will develop programs to facilitate the attainment of the goals, which have been set to increase the hiring and promotion of minorities or females. The following programs or policies will be implemented for job groups identified as underutilized.

A.   Job Descriptions

Staff will be assigned to:

1.   Conduct a review of job requirements and/or descriptions to ensure that they accurately reflect the position responsibilities. (completed in 2013 w/comp study)

2.   Evaluate new or modified job requirements for each position. Job requirements will be consistent for similar jobs in all locations and free from any bias with regards to race, color, age, religion, sex, and national origin. Job requirements that disproportionately screen out qualified minorities or females will be evaluated with respect to job's actual performance and business necessity (completed in 2013 with compensation study).

3.   When vacancies occur, a distribution of the applicable position descriptions and job qualifications will be made to all members of management involved in the recruiting, screening, and selection process.

B.   Recruitment Practices

1.   Include the phrase "Equal Employment Opportunity" (EEO) and/or "Affirmative Action" employer (EEO/AA) in all printed employment advertisements.

2.   Place appropriate job opportunities on minority and female job boards.

3.   Disseminate information on job opportunities and NCCD's affirmative action objectives to organizations representing minorities and females, and employment development agencies (external, job posting database).

4.   Actively encourage minority and female employees to refer applicants.

5.   Send minority and female employees to participate in "Career Fairs" and related activities at local colleges and universities and other related community activities.

6.   Recruit, when appropriate, at junior colleges and colleges with predominantly minority or female enrollments.

7. Participate, when appropriate, in special employment programs, and summer jobs for minority and female high school and college students.

8. Ensure that referral agencies, which are used, if any, are referring minorities and females in a nondiscriminatory manner.

C.   Selection Practices

NCCD management will monitor NCCD's selection process to ensure that it is job specific and job related. Staff responsibilities will include:

1. Periodic evaluation of the selection policy to ensure that it is free from bias and does not hinder NCCD's ability to attain its affirmative action goals.

2. Periodically evaluate practices to ensure that they are job related and necessary.

3. Train staff interviewers on proper interview techniques, appropriate inquiries, documentation, and NCCD's affirmative action objectives.

D.   Promotional and Training Practices

Management will continue to take the following types of action to prepare minorities and females for promotion, and to assist employees in advancing to jobs which offer more responsibility, challenge and further opportunity for advancement:

1. Internally post vacancies. Advise managers with the intention of identifying potential internal minority and females candidates.

2. Make available career counseling to assist employees in identifying promotional opportunities, training, and educational programs to enhance promotability and opportunities for job rotation or transfer.

3. When appropriate, offer remedial education, skills training, and work-study programs to assist employees in meeting performance standards and preparing for employment or advancement.

4. Administer any employee performance evaluation program, which is designed to assist employees in meeting performance standards, in a non-discriminatory manner.

5. Evaluate requirements for promotion on job-related criteria and ensure that minorities and females are not required to possess higher qualifications than others.

6. When an underutilization exists, require supervisory personnel to explain promotion selection decisions when qualified minority or female employees are among the candidates rejected for advancement opportunities.

E.   Management Practices

Management will continue to take the following actions to assist supervisors in meeting their Affirmative Action Program responsibilities:

1.   Periodically review forms, management practices, such as interviews, employee evaluations, counseling, training, and discipline.

2.   Offer training to management regarding NCCD's Affirmative Action Program and objectives and job-related human resources practices.

XIII.   CONCLUSION

NCCD is committed to an equal employment opportunity for all employees and applicants. In all employment transactions, it is the intention of NCCD to use every good faith effort to promote and accomplish the objectives of NCCD's Equal Employment Opportunity Policy and Affirmative Action Program.
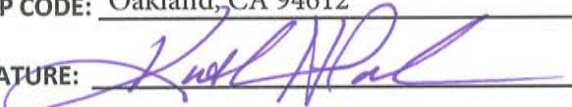
Appendix D

RFQ Forms

PROPOSAL AUTHENTIFICATION FORM

TITLE: Decision Support Tools and Predictive Analytics in Human Services

DUE DATE: APRIL 18, 2014

The undersigned hereby offers to furnish and deliver the services as specified in strict accordance with the RFP and scope of proposal, all of which are made a part of this request. This offer is not subject to withdrawal without permission of the County of Allegheny Department of Human Services Director.

FULL LEGAL COMPANY NAME: National Council on Crime and Delinquency

DOING BUSINESS AS: National Council on Crime and Delinquency

STREET ADDRESS: 1970 Broadway, Suite 500

CITY, STATE AND ZIP CODE: Oakland, CA 94612

AUTHORIZED SIGNATURE: _(signature)_

PRINT NAME: Katherine H. Park

TITLE OF AUTHORIZED SIGNER: Vice President

TELEPHONE #: 1-800-306-6223   **FAX #:** 608-831-6446

WEBSITE URL: www.nccdglobal.org

E-MAIL ADDRESS: jrussell@nccdglobal.org

Chapter 2
COMPANY INFORMATION
(This information is for tracking purposes only and has no role in the determination of the responsible proposer.)

☐ Check here if your firm is registered with the Allegheny County Department of Minority, Women and Disadvantaged Business Enterprises

☐ Check here if your firm is a "Minority Business Enterprise" or "MBE" as defined in the Small Business Act, 15 USC

☐ Check here if your firm is a "Women Business Enterprise" or "WBE" as defined in the Small Business Act, 15 USC

☒ Check here if your firm is a "Small Business" as defined by the Small Business Administration (13 C.F.R. 121.201, in most cases, this means a business with 500 or fewer employees)

NOTE: THIS PAGE MUST BE SUBMITTED WITH YOUR PROPOSAL. ALL PAGES REQUIRES A LIVE SIGNATURE SIGNED IN BLUE INK.

APPENDIX B
ABBREVIATED APPLICATION

1.   Primary Contacts

	Chief Executive	Chief Information Officer	Chief Financial Officer	Contract Processing Contact
Name	Alexander Busansky	Katherine H. Park, Vice President	Tim Dietrich	Deb Paulus
Email	abusansky@nccdglobal.org	kpark@nccdglobal.org	tdietrich@nccdglobal.org	dpaulus@nccdglobal.org
Phone	1-800-306-6223	1-800-306-6223	1-800-306-6223	1-800-306-6223

Note: If you are an individual applying, you may identify yourself for all of the above roles.

2.   I/we certify that this I/we/this organization is not currently under suspension or debarment by the Commonwealth of Pennsylvania, any other state, county or the federal government.

☒ So certified

3.   Have you ever obtained or been denied a performance or fidelity bond, or has your bond ever been revoked?

☐ Yes ☒ No

If yes, explain:

4.   Has an application to be an Allegheny County provider/vendor been denied in the past?

☒ Yes ☐ No

If yes, explain: National Council on Crime and Delinquency submitted proposals in 2011 and 2012 but were not awarded contracts.

5.   Have you ever filed for bankruptcy?

☐ Yes ☒ No

If yes, explain:

6. Have your paid all taxes for the past years, including but not limited to real estate tax, employer taxes, employee withheld taxes, personal income tax (if individual)?

    ☒ Yes ☐ No

    If yes, explain: National Council on Crime and Delinquency has paid all taxes owed for the past years.

7. Do you have the capability to do electronic billing if required?

    ☒ Yes ☐ No

    If yes, explain: National Council on Crime and Delinquency is able to email electronic copies of invoices to Allegheny DHS fiscal staff.

8. Do you currently carry the insurance (see contract on DHS website) required to enter into a contract with DHS?

    ☒ Yes ☐ No

    If yes, explain: National Council on Crime and Delinquency carries insurance at or above all the limits requested in the contract on the DHS
            website.

9. Do you/your staff have valid Pennsylvania driver licenses?

    ☐ Yes ☒ No

    If yes, explain:

As an authorized signatory for _National Council on Crime and Delinquency___ I hereby certify to the best of my knowledge and belief that the information in this proposal and application is true and accurate.
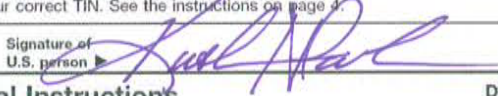
Signature: _____   Date: _4-17-14_____

Print/Type Name: _Katherine H. Park_____   Title: _Vice President_____

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Form **W-9**
(Rev. October 2007)
Department of the Treasury
Internal Revenue Service

**Request for Taxpayer
Identification Number and Certification**

Give form to the
requester. Do not
send to the IRS.

Name (as shown on your income tax return)

National Council on Crime and Delinquency

Business name, if different from above

Check appropriate box: ☐ Individual/Sole proprietor ☒ Corporation ☐ Partnership
☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ ....
☐ Other (see instructions) ▶

☒ Exempt
payee

Address (number, street, and apt. or suite no.)

1970 Broadway, Suite 500

City, state, and ZIP code

Oakland, CA 94612

Requester's name and address (optional)

List account number(s) here (optional)

Print or type *See Specific Instructions on page 2.*

Part I   **Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

or

Employer identification number

Part II   **Certification**

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and

2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and

3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign
Here

Signature of
U.S. person ▶

Date ▶ 4-17-14

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

• An individual who is a U.S. citizen or U.S. resident alien,

• A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,

• An estate (other than a foreign estate), or

• A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

• The U.S. owner of a disregarded entity and not the entity,

Cat. No. 10231X

Form **W-9** (Rev. 10-2007)

● The U.S. grantor or other owner of a grantor trust and not the trust, and

● The U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person, do not use Form W-9. Instead, use the appropriate Form W-8 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2. The treaty article addressing the income.

3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity not subject to backup withholding, give the requester the appropriate completed Form W-8.

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,

2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See the instructions below and the separate Instructions for the Requester of Form W-9.

Also see *Special rules for partnerships* on page 1.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Name

If you are an individual, you must generally enter the name shown on your income tax return. However, if you have changed your last name, for instance, due to marriage without informing the Social Security Administration of the name change, enter your first name, the last name shown on your social security card, and your new last name.

If the account is in joint names, list first, and then circle, the name of the person or entity whose number you entered in Part I of the form.

Sole proprietor. Enter your individual name as shown on your income tax return on the "Name" line. You may enter your business, trade, or "doing business as (DBA)" name on the "Business name" line.

Limited liability company (LLC). Check the "Limited liability company" box only and enter the appropriate code for the tax classification ("D" for disregarded entity, "C" for corporation, "P" for partnership) in the space provided.

For a single-member LLC (including a foreign LLC with a domestic owner) that is disregarded as an entity separate from its owner under Regulations section 301.7701-3, enter the owner's name on the "Name" line. Enter the LLC's name on the "Business name" line.

For an LLC classified as a partnership or a corporation, enter the LLC's name on the "Name" line and any business, trade, or DBA name on the "Business name" line.

Other entities. Enter your business name as shown on required federal tax documents on the "Name" line. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on the "Business name" line.

Note. You are requested to check the appropriate box for your status (individual/sole proprietor, corporation, etc.).

Exempt Payee

If you are exempt from backup withholding, enter your name as described above and check the appropriate box for your status, then check the "Exempt payee" box in the line following the business name, sign and date the form.

Generally, individuals (including sole proprietors) are not exempt from backup withholding. Corporations are exempt from backup withholding for certain payments, such as interest and dividends.

Note. If you are exempt from backup withholding, you should still complete this form to avoid possible erroneous backup withholding.

The following payees are exempt from backup withholding:

1. An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2),

2. The United States or any of its agencies or instrumentalities,

3. A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities,

4. A foreign government or any of its political subdivisions, agencies, or instrumentalities, or

5. An international organization or any of its agencies or instrumentalities.

Other payees that may be exempt from backup withholding include:

6. A corporation,

7. A foreign central bank of issue,

8. A dealer in securities or commodities required to register in the United States, the District of Columbia, or a possession of the United States,

9. A futures commission merchant registered with the Commodity Futures Trading Commission,

10. A real estate investment trust,

11. An entity registered at all times during the tax year under the Investment Company Act of 1940,

12. A common trust fund operated by a bank under section 584(a),

13. A financial institution,

14. A middleman known in the investment community as a nominee or custodian, or

15. A trust exempt from tax under section 664 or described in section 4947.

The chart below shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 15.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 9
Broker transactions	Exempt payees 1 through 13. Also, a person registered under the Investment Advisers Act of 1940 who regularly acts as a broker
Barter exchange transactions and patronage dividends	Exempt payees 1 through 5
Payments over $600 required to be reported and direct sales over $5,000¹	Generally, exempt payees 1 through 7²

¹See Form 1099-MISC, Miscellaneous Income, and its instructions.
²However, the following payments made to a corporation (including gross proceeds paid to an attorney under section 6045(f), even if the attorney is a corporation) and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, and payments for services paid by a federal executive agency.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited liability company (LLC)* on page 2), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local Social Security Administration office or get this form online at *www.ssa.gov*. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/businesses* and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting *www.irs.gov* or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: *A disregarded domestic entity that has a foreign owner must use the appropriate Form W-8.*

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, and 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). Exempt payees, see *Exempt Payee* on page 2.

Signature requirements. Complete the certification as indicated in 1 through 5 below.

1. **Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.** You must give your correct TIN, but you do not have to sign the certification.

2. **Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.** You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

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3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account [1]
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor [2]
4. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee [1]
b. So-called trust account that is not a legal or valid trust under state law	The actual owner [1]
5. Sole proprietorship or disregarded entity owned by an individual	The owner [3]

For this type of account:	Give name and EIN of:
6. Disregarded entity not owned by an individual	The owner
7. A valid trust, estate, or pension trust	Legal entity [4]
8. Corporate or LLC electing corporate status on Form 8832	The corporation
9. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
10. Partnership or multi-member LLC	The partnership
11. A broker or registered nominee	The broker or nominee
12. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name and you may also enter your business or "DBA" name on the second name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 1.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, social security number (SSN), or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:
- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

Call the IRS at 1-800-829-1040 if you think your identity has been used inappropriately for tax purposes.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov*. You may also report misuse of the IRS name, logo, or other IRS personal property to the Treasury Inspector General for Tax Administration at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: *spam@uce.gov* or contact them at *www.consumer.gov/idtheft* or 1-877-IDTHEFT(438-4338).

Visit the IRS website at *www.irs.gov* to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons who must file information returns with the IRS to report interest, dividends, and certain other income paid to you, mortgage interest you paid, the acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA, or Archer MSA or HSA. The IRS uses the numbers for identification purposes and to help verify the accuracy of your tax return. The IRS may also provide this information to the Department of Justice for civil and criminal litigation, and to cities, states, the District of Columbia, and U.S. possessions to carry out their tax laws. We may also disclose this information to other countries under a tax treaty, to federal and state agencies to enforce federal nontax criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism.

You must provide your TIN whether or not you are required to file a tax return. Payers must generally withhold 28% of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to a payer. Certain penalties may also apply.

APPENDIX D

Allegheny County

Vendor Creation Form

	Controller's use only:
	Supplier No._____
	1099 Eligibility: ☐ Yes ☐ No

X Add ☐ Change Supplier No. _____

Company Information: **Federal Tax ID (TIN)**

National Council on Crime and Delinquency   ████████

Company Name (Please type or print)   **Original** W-9 must be attached

Required information
Type of Service Provided

	Type of Commodity Provided
	(please describe below)
	Research and evaluation services and analytics

☐ Independent Contractor   ☐ Rent

☐ Maintenance/Service Agreement   ☐ Care Giver

☐ Insurance   ☐ Legal

☐ Personal Reimbursement   ☐ Medical

X Other (please list)

Research, assessment tools, evaluation, analytics

Required Information

Minority Or Women Owned   ☐ Yes   X No

If yes select ethnicity and gender of the vendor below:

☐   Asian Pacific American
☐   Black American
☐   Hispanic American
☐   Native American
☐   Subcontinent Asian American
☐   Non-Minority Woman
☐   Other

If Yes   ☐ Male ☐ Female

Certified By: ☐ PAUCP   ☐ PADGS   ☐ Non PA Certification

(attach copy of certification)

Non-Profits including Faith Based Organizations

☐ Faith Based Non-Minority

☐ Faith Based Minority

☐ African American Non-Profit

X Other Non-Profit

Outreach Manager Interface   ☐ Yes   X No

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APPENDIX D
Industry Classification by NAICS Code

Primary Industry   <u>541720</u>

Secondary Industry (if applicable)   <u>541511</u> and 518210

*If code is not known go to http://www.census.gov/epcd/naics02/naicod02.htm and select the correct code.

Supplier Information (Search Type "P") – (Where PO should be sent to place order)
Please type or print

Company Name	Telephone Number	
Address Line 1	Fax Number	
Address Line 2		
Address Line 3		
City	State	
ZIP Code		

Required Information

Supplier/Remit To Information (Search Type "V") – (Where check will be mailed for payment. Check must be made payable to exact name listed under TIN provided or check cannot be processed.)
Please print or type

Supplier/Payee Name	National Council on Crime and Delinquency
Address Line 1	1970 Broadway, Suite 500
Address Line 2	
Address Line 3	
City	Oakland State CA
ZIP Code	94612
Telephone Number	1-800-306-6223
Fax Number	608-831-6446

*If the "remit to" information provided on form does not match invoices submitted for payment, the Controller's Office MUST contact supplier to verify address information before payments are processed. Thank you for your cooperation.

APPENDIX D

If the Allegheny County Department with which you do business is known, providing the information below will help in the processing of your payments. Failure to include the information may result in processing delays.

Allegheny County
Departmental Contact

Name	Leslie Lewis-Pollard
Telephone No.	412-350-5663
Fax No.	412-350-3414
EMail Address:	Llewis-pollard@alleghenycounty.us

Supplier/Payee Contact Name

Name	Deb Paulus
Telephone No.	1-800-306-6223
Fax No.	608-831-6446
Email Address:	dpaulus@nccdglobal.org

NATIONAL COUNCIL ON CRIME AND DELINQUENCY

Allegheny County Department of Human Services
Predictive Analytics Budget and Budget Narrative
September 1, 2014 - August 31, 2015

The National Council on Crime and Delinquency (NCCD) is proposing ▮▮▮▮▮ or this project and there are no matching funds. The $760,000 is estimated to be allocated to activities as follows:

Data Opportunities
NCCD will explore the data warehouse, understand the data dictionary and warehouse structure, and develop initial analysis cohorts for each of the nine human services agencies.

Timeline: *End of Month 2*
Estimated Cost: *$▮▮▮▮*

Decision Lens Process
Through the Decision Lens process, NCCD and Allegheny County Department of Human Services (DHS) will establish a project decision-making structure, decision support priorities, and resource allocations.

Timeline: *End of Month 3*
Estimate Cost: *$▮▮▮▮*

Specification of Decision Support System
NCCD will establish the specifications for a decision support system to be the analytical "engine" and integrated display.

Timeline: *End of Month 5*
Estimated Cost: *$▮▮▮▮*

Development of Decision Support System
NCCD will build a decision support system and integrate it with existing DHS information technology.

Timeline: *End of Month 11*
Estimated Cost: *$▮▮▮▮*

Analytics and Algorithm Development
For each selected decision support opportunity, NCCD will:

- Map the decision support opportunity in terms of agency processes, department guidelines, and established protocols;

- Identify data elements, select model options, conduct analysis, and develop an algorithm;

- Share results with the core team and any applicable work groups for understanding, vetting, and establishing next steps;

- Create algorithm scripts for the decision support system and display integration.

Timeline: From Month 4 to Month 11, one algorithm will be developed. (Note: Based on analytic results and core team feedback, some algorithms may not be adopted for implementation.)

Estimated Cost: $▓▓▓▓▓

Ongoing Support

NCCD will provide ongoing support and technical assistance for use of the integrated decision support system and for future algorithm development.

Timeline: Ongoing through Month 12
Estimated Cost: $▓▓▓▓

NCCD Line Item Budget

NCCD Project Revenue	
Allegheny County Department of Human Services (Proposed)	$▓▓▓▓
Matching Funds	
None	$▓
Total Project Funds	$▓▓▓▓
NCCD EXPENSES	
Personnel	
Kathy Park, Vice President	$▓▓▓
Jesse Russell, Director of Research	$▓▓▓▓
Tim Connell, Director of Application Development	$▓▓▓▓
Kevin Loniello, Analytics Manager	$▓▓▓
Ganesh Ramasney, System Engineer	$▓▓▓
Dan Feeney, Database/Systems Manager	▓▓▓
Shannon Flasch, Associate Director	$▓▓▓
Chris Scharenbroch, Senior Researcher	$▓▓▓
Erin Wicke-Dankert, Researcher	$▓▓▓
Colleen Kerwin, Research Associate	$▓▓▓
Administrative Support	$▓▓▓
Subtotal	$▓▓▓▓
Travel	▓▓▓
Subcontractor (Decision Lens, Inc.)	$▓▓▓
Indirect Costs	$▓▓▓
NCCD Total Expenses	$▓▓▓▓

Personnel

Personnel costs are computed using standard daily rates, which are based on salaries for FY 2013-2014, plus estimated increases for subsequent fiscal years. The amounts listed are considered the minimum necessary to complete this project.

Travel

There are an estimated ten trips for three staff (three days each trip), from Madison, WI to Allegheny County, PA for project kickoff, coordinating data protocols, prioritizing and agreeing on decision-making structures, establishing system specifications, working with the core team on system build, collaborating on analytics, presenting algorithm findings and options, and ensuring close coordination and a solutions-focused problem-solving approach throughout the life of the project.

Subcontractor

NCCD will subcontract with Decision Lens, Inc. to establish a project decision-making structure, decision support priorities, and resource allocations. In conjunction with NCCD, Decision Lens will guide stakeholder and project leadership groups through the process of determining requirements, identifying priorities, and refining the criteria that will drive data exploration, analytic and algorithm development, implementation planning, and display integration.

Indirect Costs

Indirect costs include costs associated with accounting, executive management, board of directors, and general administration functions, which are required for the agency to operate as a tax-exempt, non-profit corporation.